SRI VENKATESWARA COLLEGE

2019-20

ODD SEMESTER

TEACHING PLANS

Department of Mathematics
Sri Venkateswara College
Odd Semester Teaching Plan (July-November 2019)

Ms. Shakuntla Wadhwa

Month		Topics	Course	Paper Code/Name
July	**Theory**	Polynomials, the remainder and factor theorem, synthetic division	B.Sc(H)Maths Sem-I A	BMATH102/Algebra
	Practical	NA		
	Tutorial	To discuss the doubts of students related to topics covered in the class.		
	Practical	Introduction to Mathematica and Calculus Practical. (1) Plotting of graphs of function of type (greatest integer function)… (even and odd positive integer), (even and odd positive integer), (a positive integer) , Discuss the effect of and on the graph and to solve different Questions.		BMATH101/Calculus
August	**Theory**	Fundamental theorem of Algebra, Relation between roots and coefficients, of polynomial equations, Theorems on imaginary, integral and rational roots, Polar representation of complex numbers, De Moivre's theorem, nth roots of unity, Equivalence relations, functions, composition of functions	B.Sc(H)Maths Sem-I A	BMATH102/Algebra
	Practical	NA		
	Tutorial	To discuss the doubts of students related to topics covered in the class		
	Practical	2) Plotting the graphs of polynomials of degree 4 and 5 and their first and second derivatives and analysis of these graphs. 3) Sketching parametric curves 4) Tracing of conics in Cartesian coordinates.		BMATH101/Calculus

September	**Theory**	Invertibility and inverse of functions, one to one correspondence and cardinality of set, well ordering principle, the division algorithm in Z, Divisibility and Euclidean Algorithm, Fundamental theorem of arithmetic, Modular arithmetic and basic properties of congruence, Principle of Mathematical Induction	B.Sc(H)Maths Sem-I A	BMATH102/Algebra
	Practical	NA		
	Tutorial	To discuss the doubts of students related to topics covered in the class		
	Assignment	Plan to give an assignment related to the syllabus		
	Practical	(5). Obtaining surface of revolution of curves. (6). Sketching ellipsoid, hyperboloid of one and two sheets, elliptic cone, elliptic paraboloid, hyperbolic paraboloid using Cartesian co-ordinates. (7). To find numbers between two real numbers and ploting of finite and infinite subset of R and to solve different Questions		BMATH101/Calculus
October	**Theory**	System of Linear equations, Row reduction and echelon forms, Vector equations, the matrix equation Ax = b, solution sets of linear systems, applications of linear systems, linear independence. Introduction to linear transformations, Matrix of a linear transformation, inverse of a matrix, characterizations of invertible matrices	B.Sc(H)Maths Sem-I A	BMATH102/Algebra
	Practicals	NA		
	Tutorials	To discuss the doubts of students related to topics covered in the class		
	Internal test	To conduct an internal test based on topics covered in the class.		

	Practicals	8) Computation of limit, Differentiation, Integration and sketching of vector valued functions 9) Matrix operations: addition, multiplication, inverse, transpose, determinant, rank, Eigenvalues, eigenvectors, characteristic equation, and verification of Cayley Hamilton theorem	B.Sc(H)Maths Sem-I A	BMATH101/ Calculus
November	**Theory:**	. Subspaces of Rn, dimension of subspaces of Rn and rank of a matrix, Eigen values, Eigen vectors, and Characteristic Equation of a matrix.	B.Sc(H)Maths Sem-I A	BMATH102/Algebra
	Practicals:	NA		
	Tutorials:	To discuss the doubts of students and to solve various exercises of Vector equations, the matrix equation Ax = b, solution sets of linear systems, applications of linear systems, linear independence. Introduction to linear transformations, Matrix of a linear transformation, inverse of a matrix, characterizations of invertible		
	Practicals	(11).Complex numbers and their representations, operations like addition, multiplication, division, modulus. Graphical representation of polar form. To take internal LabTest	B.Sc(H)Maths Sem-I	BMATH101/Calculus

Dr. R. K. BUDHRAJA

Month		Topics	Course	Paper
JULY	**Theory**	Limits of Functions	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
	Practicals	Making basic programs in C++, compilation and execution.	B.Sc.(Hons) Maths Sem-V	DSE 1: C++ programming
	Tutorials	Questions based on Limits of Functions	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
AUGUST	**Theory**	Limits of Functions (contd.)	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
	Practicals	1. Calculate the Sum of the series 1/1 + 1/2+ 1/3+……+1/N for any positive integer N. 2. Write a user defined function to find the absolute value of an integer. 3. Calculate the factorial of any natural number. 4. Read floating numbers and the average of negative numbers and the average of positive numbers. 5. Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number. 6. Write a program that prompts the user to input the value of a, b and c involved in the equation ax^2 + bx + c = 0 and outputs the type of the roots of the equation.	B.Sc.(Hons) Maths Sem-V	DSE 1: C++ programming
	Tutorials	Questions based on Limits of Functions	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
SEPTEMBER	**Theory**	Continuous Functions, Uniform Continuity	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions

	Practicals	7. Write a program that generates Fibonacci numbers. 8. Write a program that prompts the user to input five decimal numbers, converts each decimal number to the nearest integer, prints the sum and average of them. 9. Write a program that uses ***while*** loops to prompt the user to input two integer, output all odd and even numbers between them, output the sum of all even numbers between them, output the sum of the square of the odd numbers between them. 10. Write a program that prompts the user to input five decimal numbers, then add them, convert	B.Sc.(Hons) Maths Sem-V	DSE 1: C++ programming
	Tutorials	Questions based on Continuous Functions & Uniform Continuity	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
	<u>Assignment</u>	Based on Limits, Continuity & Uniform Continuity of Functions	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions

OCTOBER	**Theory**	Differentiability of Functions, Mean Value Theorems, Taylor's Theorems, Maxima & Minima	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
	Practicals	13. Write a function that takes as a parameter an integer and returns the number of odd, even, and zero digits. 14. Enter 100 integers into an array and short them in an ascending/ descending order and print the largest/ smallest integers. 15. Enter 10 integers into an array and then search for a particular integer in the array. 16. Multiplication/ Addition of two	B.Sc.(Hons) Maths Sem-V	DSE 1: C++ programming

	Tutorials	Questions based on Differentiability of Functions, Mean Value Theorems, Taylor's Theorems, Maxima & Minima	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
	Test	Based on whatever have been taught at that point of time. (Oct. 2019)	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
NOVEMBER	**Theory**	Taylor's Series & Maclaurin's Series Expansions	B.Sc.(Hons) Maths Sem III B	C5 : Theory of Real Functions
	Practicals	19. Write a program to create the grids using for loops: 20. Write a function that takes an integer as a parameter and returns the number with its digits reversed	B.Sc.(Hons) Maths Sem-V	DSE 1: C++ programming
	Tutorials	Questions based on Taylor's Series & Maclaurin's Series Expansions	B.Sc.(Hons) Maths	C5 : Theory of Real Functions

Dr. Mainak Mukherjee

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Metric spaces: definition and examples. Sequences in metric spaces.	B.Sc(H) MathsSem-V	C 11- Metric Spaces
	Practicals	NA		
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to Metric spaces: definition and examples. Sequences in metric spaces.		
	Practicals	Making basic programs in C++, compilation and execution.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
		Introduction to Latex and HTML And discuss related software and Practicals.	B.Sc(H) Maths Sem-III B	SEC-I LATEX AND HTML
AUGUEST	**Theory:**	Cauchy sequences, Complete Metric Spaces, Open and closed balls, neighbourhood, open set, interior of a set, Limit point of a set, closed set, diameter of a set, Cantor's Theorem.	B.Sc(H) MathsSem-V	C 11- Metric Spaces
	Practicals	NA		
	: Tutorials:	To discuss the doubt of students and various exercise questions and examples related to Cauchy sequences, Complete Metric Spaces, Open and closed balls, neighbourhood, open set, interior of a set, Limit point of a set, closed set, diameter of a set, Cantor's Theorem.		

	Practicals	1. Calculate the Sum of the series 1/1 + 1/2+ 1/3+……+1/N for any positive integer N. 2. Write a user defined function tofind the absolute value of an integer. 3. Calculate the factorial of any natural number. 4. Read floating numbers and theaverage of negative numbers and the average of positive numbers. 5. Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number. 6. Write a program that prompts the user to input the value of a, b and c involved inthe equation ax^2 + bx + c = 0 and outputs the type of the roots of the equation.		
	Practicals:	Practicals related to Elements of LATEX, Hands-on-training of LATEX.	B.Sc(H) Maths Sem-III B	SEC-I LATEX AND HTML

September	**Theory:**	Subspaces, dense sets, separable spaces, Continuous mappings, sequential criterion and other characterizations of continuity, Uniform continuity.	B.Sc(H) Maths Sem-V	C 11- Metric Spaces
	Practicals:	NA		
	Tutorials:	To discuss the doubt of students and various exercise questions and examples related to Subspaces, dense sets, separable spaces, Continuous mappings, sequential criterion and other characterizations of continuity, Uniform continuity.		
	Assignments	To be given assignment related to syllabus.		

	Practicals:	**7.** Write a program that generatesFibonacci numbers. **8.** Write a program that prompts the user to input five decimal numbers, converts each decimal number to the nearest integer, prints the sum and average of them. **9.** Write a program that uses ***while*** loops to prompt the user to input two integer, output all odd and even numbers between them, output the sum of all even numbers between them, output the sum of the square of the odd numbers between them. 10. Write a program that prompts the user to input five decimal numbers, then add them, convert the sum to the nearestinteger, and print the result. 11. Write a program that prompts the userto enter the lengths of three sides of a triangle and then outputs a message indicating type of triangle. 12. Write a value returning function***smaller***to determine the smallest number from a set of numbers. Use this function to determine the smallest number from a set of 10 numbers.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Practicals:	Practicals related to graphics in LATEX, PSTricks.	B.Sc(H) MathsSem-III B	SEC-I LATEX AND HTML
OCTOBER	**Theory:**	Homeomorphism, Contraction mappings, Banach Fixed point Theorem. Connectedness, connected subsets of **R,** connectedness and continuous mappings. Compactness.	B.Sc(H) MathsSem-V	C 11- Metric Spaces
	Tutorials:	To discuss the doubt of students and various exercise questions and examples related to Homeomorphism, Contraction mappings, BanachFixed point Theorem. Connectedness, connected subsets of **R,** connectedness and continuous mappings. Compactness.		
	Test	To take internal Test.		

	Practicals:	13. Write a function that takes as a parameter an integer and returns the number of odd, even, and zero digits. 14. Enter 100 integers into an array and short them in an ascending/ descending order and print the largest/ smallest integers. 15. Enter 10 integers into an array and then search for a particular integer in the array. 16. Multiplication/ Addition of twomatrices using two dimensional arrays. 17. Using arrays, read the vectors and compute the product and addition of these vectors. 18. Read from a text file and write to a text file.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Test	To take internal Lab Test.		
	Practicals:	Practicals related to Beamer presentation.	B.Sc(H) MathsSem-III B	SEC-I LATEX AND HTML
	Test	To take internal Lab Test.		

NOVEMBER	**Theory:**	Compactness and boundedness, continuous functions on compact spaces and to revise whole syllabus, to discuss last previous year questions papers.	B.Sc(H) MathsSem-V	C 11- Metric Spaces
	Practicals:	NA		
	Tutorials:	To discuss the doubt of students and various exercise questions and examples related to compactness and boundedness, continuous functions on compact Spaces and to revise whole syllabus, to discuss last previous year questions papers.		

Practicals:	19. Write a program to createthe grids using for loops: 20. Write a function that takes an integer as a parameter and returns the number with its digits reversed.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
Practicals:	Practicals related to complete Latex and revise all Practicals	B.Sc(H) MathsSem-III B	SEC-I LATEX AND HTML

Ms. Pratibha Gaur

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	The first-derivative test for relative extrema, Concavity and inflection points, Second derivative test for relative extrema. Curve sketching using	B.Sc(H) Semester-I	Calculus
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to Limit and Continuity	BA(P) Sem-I	Calculus
	Theory	Techniques for sketching parabola	BA(P) Sem-III	Analytic Geometry and Applied Algebra
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to symmetries of a square, Dihedral groups, definition and examples of groups.	B.Sc(H) Maths Sem-III B	C6- Group Theory-I
	Practicals	Practical No.7- f be any function and be n any number. For given N and epsilon , find a delta such that for all satisfying , the inequality holds.	B.Sc(H) Maths Sem-III A	C 7- Multivariate Calculus
	Practicals	Introduction to Latex and HTML And discuss related software and Practicals.	B.Sc(H) Maths Sem-III B	SEC-I LATEX AND HTML
AUGUST	**Theory**	Limits to infinity and infinite limits, Graphs with asymptotes, Vertical tangents and cusps, L'Hôpital's rule	B.Sc(H) Semester-I	Calculus
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to above topics.	BA(P) Sem-I	Calculus

Theory	Ellipse and hyperbola. Reflection properties of parabola	BA(P) Sem-III	Analytic Geometry and Applied Algebra
Tutorials	To discuss the doubt of students and various exercise questions and examples related to examples of groups including permutation groups and quaternion groups (illustration through matrices), elementary properties of groups. Subgroups and examples of subgroups, centralizer, normalizer, center of a group, product of two subgroups. Properties of cyclic groups, classification of subgroups of	B.Sc(H) Maths Sem-III B	C6- Group Theory-I
Practicals:	Practical No.8-To Discuss the limit of the functions when n tends to zero. Practical No.9- To discuss the limit of the following functions when tends n to infinity. *To take a lab test related to above Practicals.	B.Sc(H) Maths Sem-III A	C 7- Multivariate Calculus
Practicals:	Practicals related to Elements of LATEX , Hands-on-training of LATEX.	B.Sc(H) Maths Sem-III B	SEC-I LATEX AND HTML

September	**Theory**	Applications of derivatives in business, economics and life sciences. Higher order derivatives and Leibniz rule for higher order derivatives for the product of two functions. Parametric representation of curves	B.Sc(H) Semester-I	Calculus
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to Limit and Continuity	BA(P) Sem-I	Calculus
	Theory	ellipse and hyperbola	BA(P) Sem-III	Analytic Geometry and Applied Algebra
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to cycle notation for permutations, properties of permutations, even and odd permutations, alternating group, properties of cosets, Lagrange's theorem and consequences	B.Sc(H) Maths Sem-III B	C6- Group Theory-I
	Assignments	To be given assignment related to syllabus.	BA(P) Sem-I	Calculus
	Practicals:	Practical No.10-. Discuss the continuity of the functions. Practical No.11- To Illustrate the geometric meaning of Rolle's theorem of the functions on the given interval. Practical No .12-To Illustrate the geometric meaning of Lagrange's mean value theorem of the functions	B.Sc(H) Maths Sem-III A	C 7- Multivariate Calculus
	Practicals:	Practicals related to graphics in LATEX, PSTricks.	B.Sc(H) Maths Sem-III B	SEC-I LATEX AND HTML

OCTOBER	**Theory**	Polar coordinates and the relationship between Cartesian and polar coordinates. Tracing of curves in polar coordinates. Techniques of sketching conics: parabola, ellipse and hyperbola	B.Sc(H) Semester-I	Calculus
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to above syllabus	BA(P) Sem-I	Calculus
	Theory	ellipse and hyperbola their applications to signals, classification of quadratic equation representing lines.	BA(P) Sem-III	Analytic Geometry and Applied Algebra
	Tutorials	To discuss the doubt of students and various exercise questions and examples related External direct product of a finite number of groups, normal subgroups, factor groups, Cauchy's theorem for finite abelian groups and Group homomorphisms.	B.Sc(H) Maths Sem-III B	C6- Group Theory-I
	Test	To take internal Test.		
	Practicals :	Practicals related to Beamer presentation.	B.Sc(H) Maths Sem-III B	SEC-I LATEX AND HTML
	Test	To take internal Lab Test.		

November	**Theory**	Reflection properties of conics, Rotation of axes, Second degree equations and their classification into conics using the discriminant	B.Sc(H) Semester-I	Calculus
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to above syllabus	BA(P) Sem-I	Calculus
	Theory	Parabola, ellipse and hyperbola and to discuss last previous year questions papers.	BA(P) Sem-III	Analytic Geometry and Applied Algebra
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to Properties of homomorphisms, Cayley's theorem, properties of isomorphisms, First, Second and Third isomorphism theorems	B.Sc(H) Maths Sem-III A	C6- Group Theory-I
	Practicals:	Practical No .16- Relation of monotonicity & derivatives along with verification of first derivative test. Practical No .17- Relation of monotonicity & derivatives along with verification of first derivative test. Taylor's series - visualization by creating graphs: a. Verification of simple inequalities b. Taylor's Polynomials – approximated up to certain	B.Sc(H) Maths Sem-III A	C 7- Multivariate Calculus

Practicals:	Practicals related to complete Latex and revise all practical's	B.Sc(H) Maths Sem-III B	SEC-I LATEX AND HTML

Dr. Swarn Singh

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	To introduce the concepts of Algorithms, Convergence, Bisection Method and various problems related to these and to discuss various theorems related to convergence of the method	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
	Practicals:	Basic concepts of Mathematica and Practical (i) of the list given in the syllabus: To	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
	Tutorials:	To discuss the doubt of students and various exercise questions and examples related to polar representation of complex	B.Sc.(Hons.)Maths Sem I	C 2- Algebra
AUGUST	**Theory:**	False position method, Fixed point iteration method, Newton's method, Secant method, LU decomposition, Gauss-Jacobi method and various problems related to these and to discuss various theorems related to convergence of these methods.	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
	Practicals:	Practicals (ii) to find the absolute value of an integer, (iii) to enter 100 integers into an array and sort them in ascending order and (iv) Bisection method, Newton Raphson Method, Secant method, Regula Falsi Method	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
	Tutorials:	To discuss the doubt of students and various exercise questions and examples related to nth roots of unity, De Moivre's theorem for rational indices and its applications	B.Sc.(Hons.)Maths Sem I	C 2- Algebra
SEPTEMBER	**Theory:**	Gauss-Seidel method, SOR iterative method and various problems related to these and to discuss various theorems related to convergence of these methods.	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
	Practicals:	Practicals (v) LU decomposition method and (vi) Gauss-Jacobi method	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods

	Tutorials:	To discuss the doubt of students and various exercise questions and examples related to equivalence relations, functions, composition of functions	B.Sc.(Hons.)Maths Sem I	C 2- Algebra
	Assignment	Assignment to be given related to syllabus.	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
OCTOBER	**Theory**	Lagrange and Newton interpolation: linear and higher order, finite difference operators, Numerical differentiation: forward difference, backward difference and central difference	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
	Practicals:	Practicals (vii) SOR method, Gauss Siedel method and (viii) Lagrange Interploation, Newton Interpolation	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
	Tutorials:	To discuss the doubt of students and various exercise questions and examples related to one to one correspondence and cardinality of a set, well-ordering property of positive integers	B.Sc.(Hons.)Maths Sem I	C 2- Algebra
	Mid Term Test	To take internal Test based on the syllabus covered.	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
		To take internal Lab Test based on the syllabus covered.	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods
NOVEMBER	**Theory:**	Integration: trapezoidal rule, Simson's rule, Euler's method and to revise whole syllabus. To discuss previous year questions papers some of which are available on my Blog https://numericalmaths.wordpress.com/	B.Sc.(Hons.)Maths Sem V	DSE-1(i) Numerical Methods

Practicals:	Practical (ix):Simpson's rule and revise all practicals	B.Sc.(Hons.)Maths Sem V	DSE-1 Numerical Methods
Tutorials:	To discuss the doubt of students and various exercise questions and examples related to division algorithm, divisibility and Euclidean algorithm	B.Sc.(Hons.)Maths Sem I	C 2- Algebra

Deepti Jain

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Definition and examples of ordered sets, Chains and antichains, Order-isomorphism, The Covering Relation, Hasse Diagram, The dual of an ordered set and The Duality Principle, Top and Bottom, Maximal and minimal elements.	B.Sc.(H) Mathematics V Semester	DSE-II(ii) Discrete Mathematics
	Tutorial	Exercises and doubts based on Hasse diagram and Order-isomorphism, Verification or order-preserving, order-embedding and order-isomorphisms.		
	Practical	N/A		
	Theory	Order and degree of partial differential equations, Concept of linear and non-linear partial differential equations.	B.A. Prog V Semester	Differential Equations
	Practical	N/A		
	Practical	Introduction to Latex: 1. What is Tex and Latex? 2. To create Latex file 3. To add title, author and date 4. Mathematical Typesetting	B.Sc.(H) Mathematics III Semester	

	Practical	Use of mathematica for the following Numerical programs: (i) Calculate the sum 1/1 + ½ + 1/3+ ……..+ 1/N.	B.Sc(H) Mathematics V Semester	DSE 1(i) Numerical Methods

AUGUST	**Theory**	Sums of ordered sets, Product of ordered sets,Order-preservingmaps,Order-embedding map and order-isomorphism maps, Lattices as ordered sets, Lattices as algebraic structures, The Connecting Lemma, Sublattices, Product of lattices, Lattice homomorphism, Complete Lattices, Distributive and Modular lattices, The M3-N5 Theorem.	B.Sc.(H) Mathematics V Semester	DSE-II(ii) Discrete Mathematics
	Tutorial	Exercises based on join and meet in an ordered set, Examples of lattices and complete lattices, relationship between order-isomorphism and lattice-isomorphism, Construction of ordered sets and lattices satisfying given conditions.		
	Practical	N/A		
	Theory	Formation of first order partial differential equations, Linear partial differential equations of first order.	B.A. Prog V Semester	Differential Equations
	Practical	N/A		
	Practical	5. Delimiters 6. Arrays 7. Multi-line Expressions	B.Sc.(H) Mathematics III Semester	SEC-I
	Practical	(ii) To find the absolute value of an integer. (iii)Enter 100 integers into an array and sort them in an ascending order.	B.Sc.(H) Mathematics V Semester	DSE 1(i) Numerical Methods

SEPTEMBER	**Theory**	Boolean Algebras, Boolean Polynomials, minimal forms of Boolean polynomials, Quinn-McCluskey method, Karnaugh diagrams, Switching Circuits and applications of switching circuits.	B.Sc.(H) Mathematics V Semester	DSE-II(ii) Discrete Mathematics
	Tutorial	Exercises and doubts based on Boolean polynomials and switching circuits.		
	Practical	N/A		
	Assignment	Question from the topics including ordered sets, Lattices and Boolean Algebras.		
	Theory	Langrange's method, Charpit's method	B.A. Prog V Semester	Differential Equations
	Practical	N/A		

	Assignment	Questions from the topics: First order partial differential equations.		
	Practical	8. How to use Graphics. Assignments based on inserting graphics	B.Sc.(H) Mathmatics III Semester	SEC-I
	Practical	Bisection Method, Newton Raphson Method, Secant Method and Regulai Falsi Method and LU decomposition Method.	B.Sc.(H) Mathmatics V Semester	DSE 1(i) Numerical Methods
OCTOBER	**Theory**	Definition, examples and basic properties of graphs, pseudographs, Complete graphs, Bipartite graphs, Isomorphism of graphs, Paths and circuits, Eulerian circuits, Hamiltonian cycles, The adjacency matrix.	B.Sc.(H) Mathematics V Semester	DSE-II(ii) Discrete Mathematics
	Tutorial	Exercises based on isomorphism of graphs, paths and circuits and adjacency matrix.		
	Practical	N/A		
	Mid Term Test	Ordered Sets, Lattices, Boolean Algebras, Graphs.		
	Theory	Classification of second order partial differential equations into elliptic, parabolic and hyperbolic through illustrations.	B.A. Prog V Semester	Differential Equations

	Practical	N/A		
	Mid Term Test	Questions based on the topics: First oder and second order partial differential equations.		
	Practical	Using PSTRICKS 1. Simple pictures 2. Plotting Functions 3. Plotting pictures with nodes	B.Sc.(H) Mathmatics III Semester	SEC-I
	Practical	Gauss-Jacobi Method, Gauss-Siedel Method and Langrange Interpolation.	B.Sc.(H) Mathmatics V Semester	DSE 1(i) Numerical Methods

NOVEMBER	**Theory**	Weighted Graphs, Travelling salesman's Problem, Shortest path, Dijkstra's algorithm, Floyd-Warshall algorithm.	B.Sc.(H) Mathmatics V Semester	DSE-II(ii) Discrete Mathematics
	Tutorial	Exercises based on various algorithms mentioned above to find the shortest path in a given weighted graph.		
	Practical	N/A		
	Theory	Revision of the entire syllabus.	B.A. Prog V Semester	Differential Equations
	Practical	N/A		
	Practical	1. Beamer Presentation 2. HTML 3. Revision of all topics	B.Sc.(H) Mathmatics III Semester	SEC-I
	Practical	Simpson's Rule. Revision of all topics. Practical Examination.	B.Sc.(H) Mathmatics V Semester	DSE 1(i) Numerical Methods

Ninian Nauneet Kujur

Month		Topics	Course	Paper
July	**Theory**	Limits of functions (epsilon-delta approach), sequential criterion for limits,	Bsc(H) Maths-Sem III(B)	Theory of real functions (C5)
	Theory	Techniques for sketching parabola,	BA(P) Sem III	Analytic Geometry and Applied Algebra
	Practicals	Elements of LaTeX	Bsc(H) Maths-Sem III(B)	SEC-1 LaTeX and HTML
	Tutorials	Exercise questions related to the concept of limits.	Bsc(H) Maths-Sem III(B)	Theory of real functions (C5)
August	**Theory**	Divergence criteria, Limit theorems, one sided limits. Infinite limits & limits at infinity, Continuous functions, sequential criterion for continuity & discontinuity. Algebra of continuous functions, Continuous functions on an interval, intermediate value theorem	Bsc(H) Maths-Sem III(B)	Theory of real functions (C5)
	Theory	Techniques for sketching ellipse and hyperbola.	BA(P) Sem III	Analytic Geometry and Applied Algebra
	Practicals	Hands-on-training of LaTex; graphics in LaTeX	Bsc(H) Maths-Sem III(B)	SEC-1 LaTeX and HTML
	Tutorials	Exercise questions related to the concept of continuity.	Bsc(H) Maths-Sem III(B)	Theory of real functions (C5)

September	**Theory**	Location of roots theorem, preservation of intervals theorem, Uniform continuity, non-uniform continuity criteria, uniform continuity theorem. Differentiability of a function at a point & in an interval, Carathéodory's theorem, algebra of differentiable functions.	Bsc(H) Maths-SemIII(B)	Theory of real functions (C5)
	Theory	Reflection properties of parabola, ellipse and hyperbola and their applications to signals,	BA(P) Sem III	Analytic Geometry and Applied Algebra
	Practicals:	PSTricks; Beamer presentation	Bsc(H) Maths-SemIII(B)	SEC-1 LaTeX and HTML
	Tutorials	Questions related to Uniform continuity and differentiability.	Bsc(H) Maths-SemIII(B)	Theory of real functions (C5)

October	**Theory:**	Relative extrema, interior extremum theorem. Rolle's theorem, Mean value theorem, intermediate value property of derivatives - Darboux's theorem. Applications of mean value theorem to inequalities & approximation of polynomials Taylor's theorem to inequalities. Cauchy's mean value theorem. Taylor's theorem with Lagrange's form of remainder, Taylor's theorem with Cauchy's form of remainder, application of Taylor's theorem to convex functions, relative extrema Portion upto Mean Value	Bsc(H) Maths-SemIII(B)	Theory of real functions (C5)
	Theory **Assignment**	Classification of quadaratic equation representing lines,parabola, ellipse and hyperbola Based on portion covered	BA(P) Sem III	Analytic Geometry and Applied Algebra
	Practicals	HTML, creating simple web pages	Bsc(H) Maths-SemIII(B)	SEC-1 LaTeX and HTML
	Tutorials	Questions based on mean value theorems, Taylor's and Lagrange's theorem	Bsc(H) Maths-SemIII(B)	Theory of real functions (C5)

November	**Theory**	Taylor's series & Maclaurin's series expansions of exponential & trigonometric functions.	Bsc(H) Maths-SemIII(B)	Theory of real functions (C5)

		Revision	BA(P) Sem III	Analytic Geometry and Applied Algebra
	Practicals	images and links, design of web pages.	BSc.(H) Maths-Sem-III(B)	Multivariate Calculus
	Tutorials	Questions based on Cauchy form of remainder, expansions of various functions.	Bsc(H) Maths-Sem III(B)	Theory of real functions (C5)

Amit Kumar

Month		Topics	Course	Paper Code/Name
July	**Theory**	Symmetries of a square, Dihedral groups, definition and examples of groups	B.sc Math(H) IIIA	ALGEBRA
	Tutorials	To Discuss the Doubt of students and to solve various exercise of Symmetries of a square, Dihedral groups, definition and examples	B.sc Math(H) IIIA	ALGEBRA
	Theory	The first derivative test, concavity and inflection points, Second derivative test, Curve sketching using first and second derivative test	B.Sc(H) Math Sem-I	CALCULUS
	Practicals	Introduction to Mathematica and Calculus Practical. (1) Plotting of graphs of function of type (greatest integer function)… (even and odd positive integer), (even and odd positive integer), (a positive integer) , , , Discuss the effect of and on the graph and to solve different Questions.	B.Sc(H) Math Sem-I	CALCULUS

August	**Theory:**	Subgroups and examples of subgroups, centralizer, normalizer, center of a group, product of two subgroups, Properties of cyclic groups, classification of subgroups of cyclic groups	B.sc Math(H) IIIA	ALGEBRA
	Tutorias	To Discuss the Doubt of students and to solve various exercise of Quaternion groups (illustration through matrices), elementary properties of groups. Subgroups and examples of subgroups, centralizer, normalizer, center of a group, product of two subgroups, Properties of cyclic groups, classification of subgroups of	B.sc Math(H) IIIA	ALGEBRA
	Theory	limits at infinity, graphs with asymptotes. Graphs with asymptotes, L'Hopital's rule, applications in business, economics and life sciences., Higher order derivatives, Applications of Leibnitz rule.Parametric representation of curves and tracing of parametric	B.Sc(H) Maths Sem-I	Calculus
	Assignmens	To be given assignment related to syllabus.	B.Sc(H) Maths Sem-I and Sem-III	Calculus /Algebra
	Practicals:	(2). Plotting the graphs of polynomial of degree 4 and 5, the derivative graph, the second derivative graph and comparing them. (3). Sketching parametric curves. (4). Tracing of conics in Cartesian coordinates. Giving Assignment related to above topics.		Calculus
Septemb er	**Theory**	Cycle notation for permutations, properties of permutations, even and odd permutations, alternating group, properties of cosets, Lagrange's theorem and consequences including Fermat's Little theorem,And test related to	B.Sc(H) Maths Sem-III	Algebra

Tutorials	To Discuss the Doubt of students and to solve various exercise of Cycle notation for permutations, properties of permutations, even and odd permutations, alternating group, properties of cosets, Lagrange's theorem and consequences including Fermat's Little theorem, External direct product of a finite number of	B.Sc(H) Maths Sem-III	Algebra
Theory	Parametric representation of curves and tracing of parametric curves, Polar coordinates and tracing of curves in polar coordinates,Reduction formulae, derivations and illustrations of reduction formulae of the type, Volumes by slicing; disks and washers methods, Volumes by cylindrical shells, Arc length, arc length of	B.Sc(H) Maths Sem-I	**Calculus**
Practicals	5). Obtaining surface of revolution of curves. (6). Sketching ellipsoid, hyperboloid of one and two sheets, elliptic cone, elliptic paraboloid, hyperbolic paraboloid using Cartesian co-ordinates. (7). To find numbers between two real numbers and plotting of finite	B.Sc(H) Maths Sem-I	Calculus
Test	To take class test related to syllabus And class lab test related to above Practicals.	B.Sc(H) Maths Sem-I/IV	Calculus/Algebra

October	**Theory**	External direct product of a finite number of groups Normal subgroups, factor groups, Cauchy's theorem for finite abelian groups. Group homomorphism, properties of homomorphism, Cayley's	B.Sc(H) Maths Sem-III	Algebra
	Tutorials	To Discuss the Doubt of students and to solve various exerciseof Normal subgroups, factor groups, Cauchy's theorem for finite isomorphism,abelian groups.Group homomorphism,	B.Sc(H) Maths Sem-III	Algebra
	Theory	Introduction to vector functions and their graphs, operations with vector-valued functions, limits and continuity of vector functions, differentiation and integration of vector functions.Modeling ballistics and planetary motion, Kepler's second law. Curvature, tangential	B.Sc(H) Maths Sem-I	Calculus
	Practicals	(8). Matrix operations (addition, multiplication, inverse, transpose, determinant, rank, eigenvectors, eigenvalues, Characteristic equation and verification of Cayley Hamilton equation, system of linear equations) (9) Graph of Hyperbolic functions. (10).Computation of limit,	B.Sc(H) Maths Sem-I	Calculus

	Test	To take internal test related to syllabus And internal lab test related to above Practicals.	B.Sc(H) Maths Sem-II/IV	Calculus/Algebra
Novmber	**Theory**	First, Second and Third isomorphism theorems and To Revised whole syllabus And to Discuss last previous year questions	B.Sc(H) Maths Sem-III	Algebra
	Tutorials:	To Discuss the Doubt of students and to solve various exercise of Properties of isomorphism, First, Second and Third isomorphism theorems	B.Sc(H) Maths Sem-III	Algebra
	Theory:	Conic Section, Rotation of axes and second degree equations, classification into conics using the discriminate, Revise whole syllabus, to Discuss last previous year questions papers	B.Sc(H) Maths Sem-I	Calculus
	Practicals:	11).Complex numbers and their representations, operations like addition, multiplication, division, modulus. Graphical representation of polar form. (12). To take internal Lab Test.	B.Sc(H) Maths Sem-I	Calculus

Dr. Nisha Bohra

Month		Topics	Course	Paper Name andcode
July	Theory 1	Equivalence relations, functions	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Theory 2	Metric Spaces: Definitions and examples	B.Sc. (H) Mathematics III B	Metric spaces, C11
	Tutorial Theory 1	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Tutorial Theory 2	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics III B	Metric spaces, C11
	Practical 1	1.Plotting the graphs of various functions	B.Sc. (H) Mathematics I A (Batch 1)	Calculus, BMATH101
	Practical 2	1.Discuss the limit of the given functions of x as x tends to zero	B.Sc. (H) Mathematics II year	Multivariate calculus, C7
August	Theory 1	Composition of functions, Invertibility and inverse of functions, One-to-one correspondence	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Theory 2	Sequences in metric spaces, Cauchy sequences, Complete metric spaces, open and closed balls, Neighbourhood, open set, Interior of a set, Limit point of a set.	B.Sc. (H) Mathematics III B	Metric spaces, C11

	Tutorial Theory 1	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Tutorial Theory 2	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics III B	Metric spaces, C11

	Practical 1	2. Plotting the graphs of functions depending upon parameters a and b. To discuss and observe the changes in the real constants a, b on the graphs. 3. Plotting the graphs of polynomials of degree 4 and 5 and their first and second derivatives.	B.Sc. (H) Mathematics I A (Batch 1)	Calculus, BMATH101
	Practical 2	2. Discuss the limit of the given functions of x as x tends to infinity. 3. Discuss the continuity of given functions of x at x=0. 4. Illustrate the geometric meaning of Rolle's theorem of the given functions on the given interval.	B.Sc. (H) Mathematics II year	Multivariate calculus, C7
September	Theory 1	Cardinality of set, countable and uncountable sets, well ordering principle, the division algorithm in **Z,** Divisibilityand the Euclidean algorithm.	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Theory 2	Closed set, diameter of a set, Cantor's Theorem, Subspaces, dense sets, separable spaces, Continuous mappings, Sequential criteria and other characterizations of continuity	B.Sc. (H) Mathematics III B	Metric spaces, C11
	Tutorial Theory 1	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics I A	Algebra, BMATH102

	Tutorial Theory 2	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics III B	Metric spaces, C11
	Practical 1	4. Sketching parametric curves 5. Tracing of conics in Cartesian coordinates.	B.Sc. (H) Mathematics I A (Batch 1)	Calculus, BMATH101

	Practical 2	6. Illustrate the geometric meaning of Lagrange's theorem of the given functions on the given interval. 7. Verification of Maximumminimum theorem, boundedness theorem and intermediate value theorem for various functions and the failure of conclusion in case of any of the hypothesis is weakened.	B.Sc. (H) Mathematics II year	Multivariate calculus, C7
October	Theory 1	Fundamental theorem of arithmetic, Modular arithmetic and basic properties of congruence.	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Theory-2	Uniform continuity, Homeomorphism, Contraction mappings, Banach Fixed point theorem, Connectedness, connectedness and continuous mappings	B.Sc. (H) Mathematics III B	Metric spaces, C11
	Tutorial Theory 1	To discuss the doubt of the studentsand exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Tutorial Theory 2	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics III B	Metric spaces, C11

	Practical 1	8. Obtaining surface of revolution of curves 9. Graph of hyperbolic functions	B.Sc. (H) Mathematics I A (Batch 1)	Calculus, BMATH101
	Practical 2	8. locating points of relative and absolute extremum for different functions 9. Relation of monotonicity and derivatives along with verification of first derivative test.	B.Sc. (H) Mathematics II year	Multivariate calculus, C7
	Assignment	Assignment given on the topics covered in the class before mid-semester break	B.Sc. (H) Mathematics I A and III B	Algebra and Metric Spaces

	Internal Test	Internal Exam conducted on the basis of topics covered in the class	B.Sc. (H) Mathematics I A and III B	Algebra and Metric Spaces
November	Theory 1	Factored form of a polynomial, Fundamental theorem of Algebra, Relations between the roots and the coefficients of polynomial equations, Theorems on imaginary, integral and rational roots.	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Theory 2	Compactness, Compactness and boundedness, continuous functions on compact spaces	B.Sc. (H) Mathematics III B	Metric spaces, C11
	Tutorial Theory 1	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics I A	Algebra, BMATH102
	Tutorial Theory 2	To discuss the doubt of the students and exercise problems based on the topic covered in the class.	B.Sc. (H) Mathematics III B	Metric spaces, C11
	Practical 1	10.Computation of limit, Differentiation, Integration and sketching of vector valued functions.	B.Sc. (H) Mathematics I A (Batch 1)	Calculus, BMATH101
	Practical 2	10 Taylor series- visualization by creating graphs.	B.Sc. (H) Mathematics II year	Multivariate calculus, C7

Mr. Sudhakar Yadav

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Symmetries of a square, Dihedral groups, definition and examples of groups including permutation groups.	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Tutorials	To Discuss the doubt of students and to solve various exercise of Symmetries of a square, Dihedral groups, definition and examples of groups including permutation groups.	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Theory	Automorphism, Inner Automorphism, Automorphism groups.	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practicals:	Introduction to Latex and Html, To discuss html document as tag, head, body, title, heading, paragraph, title, list, creating simple web page related above topics. Giving assignment and taking lab test.	B.Sc(H)Maths Sem-III A	SEC-1 Latex and HTML
	Tutorials	To discuss the doubt of students and to solve various exercise of automorphism, inner automorphism, and automorphism groups.	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practials :	Practical No.1-To Draw surfaces and find level curves at the given heights. Practical No.7- f be any function and be n any number. For given N and epsilon , find a delta such that for all satisfying the inequality holds	B.Sc(H)Maths Sem-IVB	C 7- Multivariate Calculus
AUGUST	**Theory**	Quaternion groups (illustration through matrices), elementary properties of groups. Subgroups and examples of subgroups, centralizer, normalizer, center of a group, product of two subgroups, Properties of cyclic groups, classification of subgroups of cyclic	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I

	Tutorials:	To discuss the doubt of students and to solve various exercise of Quaternion groups (illustration through matrices), elementary properties of groups. Subgroups and examples of subgroups, centralizer, normalizer, center of a group, product of two subgroups, Properties of cyclic groups, classification of subgroups of cyclic groups test related to above topics.	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Theory	Automorphism groups of finite and infinite cyclic groups, applications of factor groups to automorphism groups.	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practicals:	Html style , Html list, html block , html table, html link, html images, insert pdf creating webpage related to above topics And solving exercises questions from 5	B.Sc(H)Maths Sem-III A	SEC-1 Latex and HTML
	Tutorials	To discuss the doubt of students and to solve various exercise of automorphism groups of finite and infinite cyclic groups, applications of factor groups to automorphism groups.	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practials :	Practical No.2-To draws the surfaces and discuss whether limit exits or not as approaches to the given points. Find the limit, if it exists: Practical No.3-To Draw the tangent plane to the following surfaces at the given point.	B.Sc(H)Maths Sem-IVB	C 7- Multivariate Calculus
SEPTEMBER	**Theory**	Cycle notation for permutations, properties of permutations, even and odd permutations, alternating group, properties of cosets, Lagrange's theorem and consequences including Fermat's Little theorem, External direct product of a finite number of groups	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I

	Tutorials:	To discuss the doubt of students and to solve various exercise of Cycle notation for permutations, properties of permutations, even and odd permutations, alternating group, properties of cosets, Lagrange's theorem and consequences including Fermat's Little theorem, External direct product of	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Assignment	Plan to give assignment related to syllabus	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Theory	Characteristic subgroups, Commutator subgroup and its properties.	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practicals:	Design of web pages, To discuss the element of latex, typesetting a simple document. To discuss command of sectioning, assents mathematical symbol in latex, to type example of given books and solving	B.Sc(H)Maths Sem-III A	SEC-1 Latex and HTML
	Theory	Two –phase method, Big M method and their comparison, Duality, formulation of dual problem.	B.Sc(H)Maths Sem-V-A	Linear programming problems and Game theory
	Tutorials	To discuss the doubt of students and to solve various exercise of characteristic subgroups, commentator subgroup and its properties.	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practials :	Practical No.4- Use an incremental approximation to estimate the functions at the given point and compare it with calculated value. Practical No. 5-To find critical points and identify relative maxima, relative minima or saddle points to surfaces, if it exist	B.Sc(H)Maths Sem-IVB	C 7- Multivariate Calculus
OCTOBER	**Theory**	Normal subgroups, factor groups, Cauchy's theorem for finite abelian groups. Group homomorphism, properties of homomorphism, Cayley's theorem, Properties of isomorphism.	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I

	Tutorials:	To discuss the doubt of students and to solve various exercise of Normal subgroups, factor groups, Cauchy's theorem for finite abelian groups. Group homomorphism, properties of homomorphism, Cayley's theorem,	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Test	To take internal Test	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Theory	Properties of external direct products, the group of units modulo n as an external direct product, internal direct	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practicals:	Working Mathematical Typesetting , Arrays , Delimiters, Multiline formulas , Graphics ,PS trick, Plotting of functions in Latex, to type example of given books and solving exercises questions from	B.Sc(H)Maths Sem-III A	SEC-1 Latex and HTML
	Test	To take internal Test	B.Sc.(H) Math Sem-V-A	Linear programming problems and Game theory
	Tutorials	To discuss the doubt of students and to solve various exercise of properties of external direct products, the group of	B.Sc.(H) Maths Sem-VIA	C6-Group Theory-I I
	Practials :	Practical No.6-To draw the regions **D** and check whether these regions are of **Type I** or **Type II**:	B.Sc.(H) Maths Sem-IVB	C 7- Multivariate Calculus
	Test	To give assignment related to above topics and To take internal Lab Test	B.Sc.(H) Math Sem-IVB	C 7- Multivariate Calculus
NOVEMBER	**Theory**	First, Second and Third isomorphism theorems and to revise whole syllabus And , to discuss previous year questions	B.Sc(H)Maths Sem-III-B	C6-Group Theory-I
	Tutorials:	To discuss the Doubt of students and to solve various exercise of properties of isomorphism, First, Second and Third isomorphism theorems and to revise	B.Sc. (H) Math Sem-III-B	C6-Group Theory-I
	Theory	Fundamental Theorem of finite abelian groups.	B.Sc.(H)Math Sem-VIA	C6-Group Theory-I I
	Practicals:	Beamer presentation, examples of given books and solving exercises questions from given references books, giving	B.Sc(H)Maths Sem-III A	SEC-1 Latex and HTML

	Tutorials	To discuss the doubt of students and to solve various exercise questions. To revise of Introduction to fundamental Theorem of finite abelian groups. Further, to discuss previous year questions papers.	B.Sc(H)Maths Sem-VIA	C6-Group Theory-I I
	Practials :	To revise whole practical		

Ms.RajniArora

Month		Topics	Course	Paper Code/Name
JULY	**Theory 1**	Introduction to structuredprogramming: data types-simple data types, floating datatypes, character data types, string data types, arithmetic operators and operatorprecedence, variables and constant declarations, expressions	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Theory 2	Introduction to TeX and LaTeX, typesetting a simple document, adding basic information, mathematical symbols, environments, sectioning and	B.Sc.(H) Mathematics Sem-3	**SEC-1 LaTeX and HTML**
	Theory 3	First order ordinary differential equations: Basic concepts and ideas.	B.Sc.(H) Chemistry Sem-3	**GE-3 Differential Equations**
	Practical	Making basic programs in C++, compilation and execution.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
AUGUST	**Theory 1**	Input using theextraction operator and cin, output using the insertion operator and cout,pre-processor directives, increment(++) and decrement(--) operations, creating a C++program, input/ output, relational operators, logical operators and logical expressions, ifand if-else statement, switch and break statements; related problems.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Theory 2	Footnotes, Assents and symbols, Mathematical typesetting (Elementary and advanced), subscript, superscript, fractions, roots, ellipsis, arrays, delimiters, multiline formulas, spacing and changing style in math mode	B.Sc.(H) Mathematics Sem-3	**SEC-1 LaTeX and HTML**
	Theory 3	Exact differential equations, Integrating factors, Bernoulli	B.Sc.(H) Chemistry	**GE-3 Differential**

		equations, Orthogonal trajectories of curves, Existence and uniqueness of solutions, Second order differential equations: Homogenous linear equations of second order; related problems	Sem-3	**Equations**
	Practical	1.Calculate the Sum of the series 1/1 + 1/2+ 1/3+……+1/N for any positive integer N. 2. Write a user defined function to find the absolute value of an integer. 3. Calculate the factorial of any natural number. 4. Read floating numbers and the average of negativenumbers and the average of positive numbers. 5. Write a program that prompts the user to input a positive integer. It should thenoutput a message indicating whether the number is a prime number. 6. Write a program that prompts the user to input the value of a, b and c involved inthe equation ax^2 + bx + c = 0 and outputs the type of the roots of the equation.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Tutorials	To discuss the doubts of students and various exercise questions related to first and second order ordinary differential equations	B.Sc.(H) Chemistry Sem-3	**GE-3 Differential Equations**
SEPTEMBER	**Theory 1**	"for", "while" and "do-while" loops and continue statement, nested control statement,value returning functions, value versus reference parameters; related problems	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**

	Theory 2	Graphics in LaTeX, use of PS Tricks	B.Sc.(H) Mathematics Sem-3	**SEC-1 LaTeX and HTML**
	Theory 3	Second order homogenous equations with constant coefficients, Differential operator, Euler-Cauchy equation, Existence and uniqueness theory, Wronskian, Non-homogenous ordinary differential equations, Solution by undetermined coefficients, Solution by variation of parameters; related problems	B.Sc.(H) ChemistrySem-3	**GE-3 Differential Equations**
	Practicals	7. Write a program that generates Fibonacci numbers. 8. Write a program that prompts the user to input five decimal numbers, converts each decimal number to the nearest integer, prints the sum and average of them. 9. Write a program that uses ***while*** loops to prompt the user to input two integer, output all odd and even numbers between them, output the sum of all even numbers between them, output the sum of the square of the odd numbers between them. 10. Write a program that prompts the user to input five decimal numbers, then add them, convert the sum to the nearest integer, and print the result. 11. Write a program that prompts the user to enter the lengths of three sides of atriangle and then outputs a message indicating type of triangle. 12. Write a value returning function ***smaller*** to determine	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**

		the smallest number fromaset of numbers. Use this function to determine the smallest number from a set of 10 numbers.		
	Tutorials	To discuss the doubts of students and various exercise questions related to topics done so far.	B.Sc.(H) Chemistry Sem-3	**GE-3 Differential Equations**
	Assignment	Problems covering all topics done duringJuly- September	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
		Problems covering all topics done duringJuly- September	B.Sc.(H) Mathematics Sem-3	**SEC-1 LaTeX and HTML**
		Problems covering all topics done duringJuly- September	B.Sc.(H) Chemistry Sem-3	**GE-3 Differential Equations**
OCTOBER	**Theory 1**	local and global variables, one dimensional array, two-dimensional array, pointer data and pointer variables.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Theory 2	Plotting of functions in LaTeX, Beamer presentation, Introduction to HTML, creating simple web pages	B.Sc.(H) Mathematics Sem-3	**SEC-1 LaTeX and HTML**

	Theory 3	Higher order homogenous equations with constant coefficients, System of differential equations, System of differential equations; related problems	B.Sc.(H) Chemistry Sem-3	**GE-3 Differential Equations**
	Practicals	13. Write a function that takes as a parameter an integer andreturns the number of odd, even, and zero digits. 14. Enter 100 integers into an array and short them in an ascending/ descending order and print the largest/ smallest integers. 15. Enter 10 integers into an array and then search for a particular integer in the array. 16. Multiplication/ Addition of two matrices using two dimensional arrays. 17. Using arrays, read the vectors and compute the product and addition of these vectors. 18. Read from a text file and write to a text file.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Tutorials	To discuss the doubts of students and various exercise questions related to partial differential equations	B.Sc.(H) Chemistry Sem-3	**GE-3 Differential Equations**
	<u>Mid Term Test</u>	Problems from all the topics covered till date	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
		Problems from all the topics covered in class till that date	B.Sc. (H) Mathematics Sem-3	**SEC-1 LaTeX and HTML**
		Problems from all the topics covered in class till that date	B.Sc. (H) Chemistry Sem-3	**GE-3 Differential Equations**
NOVEMBER	**Theory 1**	Revision and doubts sessions	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**

	Theory 2	Tricks to customize HTML page and revision of the syllabus	B.Sc. (H) Mathematics Sem-3	**SEC-1 LaTeX and HTML**
	Theory 3	Conversion of *n*th order ODEs to a system, Basic concepts and ideas, Homogenous system with constant coefficients;related problems	B.Sc. (H) Chemistry Sem-3	**GE-3 Differential Equations**
	Practical	19. Write a program to create the grids using for loops: 20. Write a functionthat takes an integer as a parameterand returnsthe number with its digits reversed.	B.Sc.(H) Maths Sem-V DSE-I	**C++ programming**
	Tutorials	To discuss the doubts of students and last years' question papers	B.Sc.(H) Chemistry Sem-3	**GE-3 Differential Equations**

Dr. Shahna

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Functions of several variables, limit and continuity of functions of two variables, partial differentiation	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Theory	Elements of LaTeX	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	Elements of LaTeX	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	(i) Calculate the sum 1/1 + 1/2 + 1/3 + 1/4 + ---------+ 1/ N.	B.Sc(H) Maths Sem-V B	DSE-1 Numerical Methods
	Theory	Introduction of limits	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to topics covered.	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Assignment	To give assignments to some students of the above courses		
AUGUST	**Theory:**	Total differentiability, sufficient condition for differentiability. Chain rule for one and two independent parameters, directional derivatives, the gradient, maximal and normal property of the gradient, tangent planes. Extrema of functions of two variables, method of Lagrange multipliers, constrained optimization problems, Definition of vector field, divergence and curl.	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Theory	Hands-on-training of LaTex; graphics in LaTeX	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	Hands-on-training of LaTex; graphics in LaTeX	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML

	Practicals	(ii) Calculate the sum 1/1 + 1/2 + 1/3 + 1/4 + ---------+ 1/ N. (iii) To find the absolute value of an integer.	B.Sc(H) Maths Sem-V B	DSE-1 Numerical Methods
	Theory	The first derivative test, Concavity and inflection points, Second derivative test, Curve sketching using first and second derivative test; Limits at infinity	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons)	GE-1 Calculus
	Tutorials	Exercise questions related to limits	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Assignment :	To give assignment to some students of the above courses		
SEPTEMBER	**Theory**:	Double integration over rectangular region, double integration over nonrectangular region, Double integrals in polar co-ordinates, Triple integrals, Triple integral over a parallelopiped and solid regions, Volume by triple integrals, cylindrical and spherical co-ordinates, Change of variables in double integrals and triple integrals .	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Theory	PSTricks; Beamer presentation	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	PSTricks; Beamer presentation	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	(iv) Any two of the following (a) Bisection Method (b) Newton Raphson Method (c) Secant Method (d) Regulai Falsi Method (v) LU decomposition Method (vi) Gauss-Jacobi Method	B.Sc(H) Maths Sem-V B	DSE-1 Numerical Methods
	Theory	Horizontal asymptotes, Vertical asymptotes, Graphs with asymptotes; L'Hôpital's rule, Volumes by slicing	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus

	Tutorials	To discuss the doubts of students and various exercise questions and examples related to the topics covered in the theory class.	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Assignment :	To give assignment to some students of the above courses		
OCTOBER	**Theory**:	Line integrals, Applications of line integrals: Mass and work. Fundamental theorem for line integrals, conservative vector fields, independence of path. Green's theorem, surface integrals, integrals over parametrically defined surfaces**.**	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Theory	HTML, creating simple web pages	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	HTML, creating simple web pages	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	(vii) SOR Method or Gauss-Siedel Method (viii) Lagrange Interpolation or Newton Interpolation	B.Sc(H) Maths Sem-V B	DSE-1 Numerical Methods
	Test	**To take** internal lab test of the above Practicals.		
	Theory	Functions of several variables: Graphs and level curves, Limits and continuity	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Tutorials	To discuss the doubts of students and various exercise questions and examples related to the topics covered in the theory class.	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Assignment	To give assignment to some students of the above courses		

NOVEMBER	**Theory**	Stokes' theorem, The Divergence theorem	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Theory	images and links, design of web pages.	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	images and links, design of web pages.	B.Sc(H) Maths Sem-III B	SEC-1 Latex and HTML
	Practicals	(ix) Simpson's rule.	B.Sc(H) Maths Sem-V B	DSE-1 Numerical Methods
	Theory	Partial derivatives and differentiability, The chain rule, Directional derivatives and gradient vectors, Tangent plane and normal line, Extreme values and saddle points	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Tutorials	To discuss the doubts of students and various exercise questions and examples related to the topics covered in the theory class.	Sem I BA(Hons) and Bsc(Hons) Other than BSc(Hons) Mathematics	GE-1 Calculus
	Assignment :	To give assignment to some students of the above courses		

Dr. Garima V. Arora

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Functions of several variables, limit and continuity of functions of two variables, partial differentiation, total differentiation.	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Practical	Basic introduction about Mathematica Practical 1- Plotting of graphsof functions.	B.Sc(H) Maths Sem-I (Batch B)	C1- Calculus
	Practical	Practical 1- To draw surfaces and level curves. Practical 2-To draw surfaces and discuss whether limit exits or not as approaches to the given points. Find the limit, if it exists	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Practical	Practical 1- To draw surfaces and level curves. Practical 2-To draw surfaces and discuss whether limit exits or not as approaches to the given points. Find the limit, if it exists	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Theory	Group actions, stabilizers and kernels, permutation representation associated with a group action	B.Sc(H) Maths Sem-V A	C12- Group Theory-II
	Tutorial	To discuss questions and examples on the topics covered in the theory lecture.	B.Sc(H) Maths Sem-V A	C12- Group Theory-II
AUGUST	**Theory**	sufficient condition for differentiability, Chain rule for one and two independent parameters, directional derivatives, the gradient, maximal and normal property of the gradient, tangent planes, Extrema of functions of two variables, method of Lagrange multipliers, constrained optimization problems, Definition of vector field, divergence and curl, double integration over rectangular region.	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Practical	Practical 2-Plotting the graphs of polynomials, derivatives, second derivatives and comparing them. Practical 3- Sketching parametric curves.	B.Sc(H) Maths Sem-I (Batch B)	C1- Calculus

	Practical	Practical 3-To Draw the tangent planes Practical 4- Use incremental approximations to estimate functions.	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Practical	Practical 3-To Draw the tangent planes Practical 4- Use incremental approximations to estimate functions.	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Theory	Applications of group actions: Generalized Cayley's Theorem, Index Theorem, groups acting on themselves by conjugation.	B.Sc(H) Maths Sem-V A	C12- Group Theory-II
	Theory	Group actions, stabilizers and kernels, permutation representation associated with a group action, applications of group actions: Generalized Cayley's Theorem,	B.Sc(H) Maths Sem-V B	C12- Group Theory-II
	Assignment :	To give assignment to students of both the courses		
SEPTEMBER	**Theory**	Double integration over nonrectangular region, Double integrals in polar co-ordinates, Triple integrals, Triple integral over a parallelopiped and solid regions, Volume by triple integrals, cylindrical and spherical co-ordinates, Change of variables in double integrals and triple integrals , Line integrals.	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Practical:	Practical 4-Tracing of conics in Cartesian coordinates Practical 5- Obtaining surface of revolution of curves	B.Sc(H) Maths Sem-I (Batch B)	C1- Calculus
	Practical:	Practical 5-To find critical points and identify relative maxima, relative minima or saddle points to surfaces, if it exists. Practical 6- To draw and check type-I and type-II regions	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus

	Practical:	Practical 5-To find critical points and identify relative maxima, relative minima or saddle points to surfaces, if it exists. Practical 6- To draw and check type-I and type-II regions	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Theory	Class equation and consequences, conjugacy in Sn	B.Sc(H) Maths Sem-V A	C12- Group Theory-II
	Theory	Index Theorem, groups acting on themselves by conjugation, Class equation and consequences.	B.Sc(H) Maths Sem-V B	C12- Group Theory-II
OCTOBER	**Theory**:	Applications of line integrals: Mass and work. Fundamental theorem for line integrals, conservative vector fields, independence of path. Green's theorem, surface integrals**.**	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Practical	Practical 6-Sketching ellipsoid, Hyperboloid of one and two sheets using Cartesian coordinates.	B.Sc(H) Maths Sem-I (Batch B)	C1- Calculus
	Practical	Practical 15-To locate points of relative & absolute extremum for different functions.	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Practical	Practical 15-To locate points of relative & absolute extremum for different functions.	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Test	To take internal lab test of the above Practicals.		
	Theory	p-groups, Sylow's theorems and consequence, Sylow's Theorems and consequences.	B.Sc(H) Maths Sem-V A	C12- Group Theory-II
	Tutorials	To discuss the doubt of students and various exercise questions and examples related to topics covered.	B.Sc(H) Maths Sem-V A	C12- Group Theory-II
	Assignment	To give assignment to students of both the courses		
NOVEMBER	**Theory**	Integrals over parametrically defined surfaces, Stokes' theorem, The Divergence theorem	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus

	Practical	Practical 6- Sketching elliptic cone, elliptic paraboloid, hyperbolic paraboloid using Cartesian coordinates.	B.Sc(H) Maths Sem-I (Batch B)	C1- Calculus
	Practical	Practical 16- Relation of monotonicity & derivatives along with verification of first derivative test.	B.Sc(H) Maths Sem-III A	C7-Multivariate Calculus
	Practical	Practical 16- Relation of monotonicity & derivatives along with verification of first derivative test.	B.Sc(H) Maths Sem-III B	C7-Multivariate Calculus
	Theory	Cauchy's theorem, Simplicity of An for $n \geq 5$, non-simplicity tests.	B.Sc(H) Maths Sem-V A	C12- Group Theory-II
	Tutorials	To discuss the doubt of students and various exercise questions and examples.	B.Sc(H) Maths Sem-V A	C12- Group Theory-II

SEMESTER WISE
TEACHING PLAN (2019-2020
SRI VENKATESWARA COLLEGE

Name of the Faculty: **Dr. Deepika Singh** Department: Political **Science**
ODD Semester: **I/III/V**

Name of the paper: **NATIONALISM IN INDIA - GE SEM III**

Month		Topic	Course	Paper Code/Name
July	**Theory**	Approaches to the study of nationalism	Honours GE Paper	**Nationalism in India**
	Practicals			
	Tutorials			
August	**Theory**	Unit 2 Reformist and anti-reformist movement of 19th century: major social and religious movements		
	Practicals			
	Tutorials			
	Assignment	Social movements and their significance		
September	**Theory**	Unit 3 Nationalist Politics and Expansion of its Social Base. a. Phases of Nationalist Movement: Liberal Constitutionalists, Swadeshi and the Radicals; Beginning of Constitutionalism in India b. Gandhi and Mass Mobilization: Non-Cooperation Movement, Civil Disobedience Movement, and Quit India Movement c. Socialist Alternatives: Congress Socialists, Communists.		
	Practicals			
	Tutorials	Relevance of Gandhi		
October	**Theory**	Unit 4 Social Movements (8 lectures) a. The Women's Question: Participation in the National Movement and its Impact b. The Caste Question: Anti-Brahmanical Politics c. Peasant, Tribals and Workers Movements		
	Practicals			
	Tutorials	Issue of tribal after independence		
	Test	Test in Unit I and II		
November	**Theory**	Unit 5 Partition and Independence a. Communalism in Indian Politics b. The Two-Nation Theory, Negotiations over Partition		

	Practicals			
	Tutorials	Debate on partition ,Was partition inevitable		

Name of the Paper: **Legislative practices and procedures BA Political science H III SEM** (SEC) shared paper

Month		Topic	Course	Paper Code/Name
July	**Theory**		BA (H)SEC Paper	**Legislative Practices and Procedures**
	Practicals			
	Tutorials			
August	**Theory**			
	Practicals			
	Tutorials			
	Assignment	Critically examine the role of Parliamentary Committees		
September	**Theory**	**Supporting the legislative process**: How a Bill becomes a Law, Role of the Standing Committee in reviewing a Bill, Legislative Consultations, amendments to a Bill & The framing of Rules and Regulations.		
	Practicals			
	Tutorials			
October	**Theory**	Supporting the legislative committees Types of committees, Role of committees in reviewing government finances, policy, programmes, and legislation.		
	Practicals			
	Tutorials			
	Test	Unite-II, III & IV		
November	**Theory**	**Reading the budget document**: Overview of Budget Process, Role of Parliament in reviewing the Union Budget, Railway Budget, Examination of Demands for Grants of Ministries, Working of Ministries Support in media monitoring and communication: Types of media and their significance for legislators. Basics of communication in print and electronic media		
	Practicals			
	Tutorials			

Name of the Paper: **Introduction to Comparative Government and Politics**

Month		Topic	Course	Paper Code/Name
July	**Theory**	Understanding comparative politics	BA Pol SC core paper honurs	INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS
	Practicals			
	Tutorials			
August	**Theory**	Nature and scope of comparative politics Going beyond eurocentrism		
	Practicals			
	Tutorials			
	Assignment			
September	**Theory**	HISTORICAL CONTEXT OF MODERN GOVERNMENT B) Socialism; Meaning, growth and development C) colonialism and decolonization; meaning, context, forms of colonialism, colonial struggle and process of decolonization		
	Practicals			
	Tutorials	Discussion on decolonisation		
October	**Theory**	Comparative study of constitutional development and political economy in the following countries: Brazil, Britain		
	Practicals			
	Tutorials			
	Test	Unit I &II		
November	**Theory**	Comparative study of constitutional development and political economy in the following countries: Nigeria and China		
	Practicals			
	Tutorials	Comparing the political system of		

		Nigeria and Brazil		

Dr Deepika Singh
Assistant Professor (ad hoc)
Department of political Science

SEMESTER WISE
TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr Jita Mishra **Department: Political Science**

Semester : I/111/V Citizenship in a globalizing world

Month		Topics	Course	Paper Code/Name
JANUARY	**Theory**	Classical conceptions of citizenship	BA Hons Political Science 3rd year v semester	5.3A Citizenship in a globalizing world
	Practicals			
	Tutorials	Greek and Roman citizenship		
FEBRUARY	**Theory:**	The evolution of Citizenship and the modern state		

	Practicals:			
	Tutorials:	Evolution of citizenship		

	Assignment :	Classical theory of citizenship
MARCH	**Theory:**	Citizenship and diversity
	Practicals:	
	Tutorials:	diversity
	Test	

APRIL	**Theory:**	Citizenship beyond the nation state-globalisation and global justice
	Practicals:	
	Tutorials:	Globalization -cultural,economic, political

MAY	**Theory:**	The idea of cosmopolitan citizenship
	Practicals:	
	Tutorials:	Cosmopolitan citizenship- the contemporary debate

SEMESTER WISE TEACHING

PLAN

SRI VENKATESWARA COLLEGE

July-November, 2019

Name of the Faculty: Dr SANTOSH KUMAR SINGH

Department: POLITICAL SCIENCE

Semester: B.A (Hons) Vth Semester
Paper XI-Classical Political Philosophy

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	What is Political Thought, Theory and Philosophy. Debates on Decline and Resurgence of Political Theory Methods of Interpretation: Textual, Contextual and Postmodern Approach	B.A (Hons) Vth Semester	Paper XI-Classical Political Philosophy
	Tutorials:	Philosophy and Politics Philosophy and science Metaphysics and Epistemology		

AUGUST	**Theory:**	Textual Approach – Terence Ball, Hannah Arendt, Leo Strauss. Contextual Approach-Quentin Skinner, Thomas Kuhn, Sheldon Wolin Postmodern Approach- Herbert Marcuse, Jurgen Habermas, Michel Foucault, Nietzsche Plato's Philosophy- Theory of Forms, Justice, Philosopher King/Queen, Communism Plato's Later Political Thought	B.A (Hons) Vth Semester	Paper XI- Classical Political Philosophy
	Tutorials:	Textual, Contextual and Postmodern Approach Plato's Philosophy		
SEPTEMBER	**Theory:**	Aristotle Philosophy-Comparison with Plato Religion, Theory on State, Citizenship, Slavery, and Forms of Government, Ethics, Constitution, Justice Political Thought from Ancient Greece to Early Christianity Machiavelli's Philosophy-Virtu, Religion, Republicanism, Separation of State vs Religion, morality and statecraft; vice and virtue and Modern thinker	B.A (Hons) Vth Semester	Paper XI- Classical Political Philosophy
	Assignment	Textual, Contextual and Postmodern Approach Plato's Philosophy Aristotle Philosophy		
OCTOBER	**Theory**	Hobbes Philosophy-Human nature, State of Nature, Social Contract, State, Leviathan; atomistic individuals. Locke's Philosophy- Laws of Nature, Natural Rights, Property, right to	B.A (Hons) Vth Semester	Paper XI- Classical Political Philosophy

		dissent, Theory on State, Rights, Forms of Government		
	Tutorials:	Hobbes Philosophy compare with Locke's Philosophy		
	<u>Mid Term Test</u>			
NOVEMBER	**Theory:**	Understanding the Political Philosophy – From Plato to Locke Revision of previous topics	B.A (Hons) Vth Semester	Paper XI- Classical Political Philosophy
	Tutorials:			

(***Dr Santosh Kumar Singh)***

SEMESTER WISE TEACHING

PLAN

SRI VENKATESWARA COLLEGE

July-November, 2018

Name of the Faculty: Dr SANTOSH KUMAR SINGH

Department: POLITICAL SCIENCE

Semester: B.A (Prog) Vth Semester
Paper GE (Interdisciplinary): Reading Gandhi

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	Philosophy Vs Theory, Thought Vs Theory, Thought Vs Philosophy in the context of Gandhi Approaches of Interpretation: Textual, Contextual and Postmodern Approach	B.A (Prog) Vth Semester	Paper GE (Interdisciplinary): Reading Gandhi
	Tutorials:	Philosophy and Politics Philosophy and science Metaphysics and Epistemology		
AUGUST	**Theory:**	Textual Approach – Terence Ball, and Leo Strauss. Contextual Approach- Quentin Skinner, and Sheldon Wolin Postmodern Approach- Herbert Marcuse, Jurgen Habermas, Michel Foucault, Nietzsche Gandhi's Philosophy Gandhi in his own words: A close reading of Hind Swaraj	B.A (Prog) Vth Semester	Paper GE (Interdisciplinary): Reading Gandhi
	Tutorials:	Textual, Contextual and Postmodern Approach Gandhi's Philosophy		

SEPTEMBER	**Theory:**	Commentaries on Hind Swaraj and Gandhian thought by A.J.Parel, B.Parekh, and D.Hardiman	B.A (Prog) Vth Semester	Paper GE (Interdisciplinary): Reading Gandhi
	Assignment	Textual, Contextual and Postmodern Approach Gnadhi's Philosophy-Modernity, Swaraj, Satyagraha		
OCTOBER	**Theory**	Gandhi and modern India-Nationalism, Communal unity, Women's Question, and Untouchability	B.A (Prog) Vth Semester	Paper GE (Interdisciplinary): Reading Gandhi
	Tutorials:	Relevance of Gandhi in Our life		
	Mid Term Test			
NOVEMBER	**Theory:**	Understanding the Overall Gandhi's Philosophy and Contribution Revision of previous topics	B.A (Prog) Vth Semester	Paper GE (Interdisciplinary): Reading Gandhi
	Tutorials:	Where do you find Gandhi ji		

(***Dr Santosh Kumar Singh)***

SEMESTER WISE
TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Namita Pandey **Department:** Political Science

Semester : I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Approaches to Understanding Patriarchy. Feminist theory of Sex/Gender Distinction Biologism vs. Social Construction Understanding Patriarchy and Feminism	BA(Hons), Fifth Semester, Political Science	Feminism: Theory and Practice
	Practicals			
	Tutorials	Discussion on Sylvia Walby - Theorizing Patriarchy		
AUGUST	**Theory:**	Liberal Theory of Feminism. Discussion of First Wave of Feminism with special reference to Mary Wollstonecraft & other Feminist authors. Marxist theory of Feminism with special reference to Marx and Engels perspective on Feminism		

	Practicals:			
	Tutorials:	Understanding Sex/Gender distinctions in day to day living		

	<u>Assignment:</u>	Critically Examine the liberal theory of Feminism from Marxian Perspective
SEPTEMBER	**Theory:**	Socialist Theory of Feminism with Special reference to Dual Patriarchy, Zilla Einstein's notion of Capitalist Patriarchy Emphasis on Women's Question from Neomarxist Perspective Radical Theory of Feminism
	Practicals:	
	Tutorials:	A discussion on Betty Friedans Feminine Mystique, Simon De Beauvoir’s Second Sex

	Test	A Critical Comparison between Radical and Socialist Feminism
OCTOBER	**Theory:**	Origin of Feminist in the West: Women in French Revolution, Suffrage Movement in Britain and West, Feminism in Scoalist Countries, Women in Russian Revolution, Feminist Movements in China and Cuba, Feminist Issues and Womens Participation in Anti Colonial and national Liberation Movements with special reference to India
	Practicals:	
	Tutorials:	Class Presentation on Women in Indian National Movement

NOVEMBER	**Theory:**	Tradtional Histiography and Feminist Critiques: A Criticism of Traditional History by Analyzing the Social Reform movement and Indian National Movement & Position of Women in India Family in India: Patrilineal and Matrilineal, Patterns of Consumption, Intra Household Bargaining and Entitlement, Property Rights Women in Work, Seual Division of Productive and Reproductive Work, Paid, Underpaid and Unpaid work, Visible and Invisible Work, Methods of Computing Women's Work, Female Head Households
	Practicals:	

	Tutorials:	A discussion on domestic labor debate emerging in the context of unpaid labour

SEMESTER WISE
TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: DR JITA MISHRA **Department:POLITICAL SCIENCE**

Semester : I/III/V Understanding Political Theory

Month		Topics	Course	Paper Code/Name
JANUARY	**Theory**	What is Politics Theorising the political	Ba Hons Political science1st year 1st semester	Paper 1 1,1 Understanding Political theory
	Practicals			
	Tutorials	Liberal and Marxist view of Politics		
FEBRUARY	**Theory:**	What is theory Normative and emperical		

	Practicals:			
	Tutorials:	Discussion on positivism		

	Assignment :	Nature and purpose of political theory
MARCH	**Theory:**	Marxist , Conservative, anarchist liberal approches
	Practicals:	
	Tutorials:	Conservatives
	Test	What are the main principles of conservative theory?

APRIL	**Theory:**	Historical approach Feminism.liberal, radical feminism
	Practicals:	
	Tutorials:	Discussion on liberal feminism

MAY	**Theory:**	Postmodernism Revision of earlier topics
	Practicals:	
	Tutorials:	Socialist feminism

SEMESTER WISE TEACHING PLAN
(2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: **Dr. Haokam Vaiphei** Department: Political **Science**
ODD Semester: **I/III/V**

Name of the paper: **United Nations and Global Conflicts GE-I**

Month		Topic	Course	Paper Code/Name
July	**Theory**	The United Nations (a) An Historical Overview of the United Nations (b) Principles and Objectives	Honours GE Paper	**United Nations and Global Conflict**
	Practicals			
	Tutorials	Un Agencies		
August	**Theory**	Structures and Functions: Six Organs and Agencies		
	Practicals			
	Tutorials			
	Assignment	Any Major Conflicts		
September	**Theory**	Peace Keeping, Peace Making and Enforcement, Peace Building and Responsibility to Protect Millennium Development Goals		
	Practicals			
	Tutorials	MGD		
October	**Theory**	***Major Global Conflicts since the Second World War*** (a) Korean War (b) Vietnam War (c) Afghanistan Wars (d) Balkans: Serbia and Bosnia		
	Practicals			
	Tutorials	Balkan Conflicts		
	Test	Test in Unit I and II		
November	**Theory**	Assessment of the United Nations as an International Organization: Imperatives of Reforms and the Process of Reforms		
	Practicals			
	Tutorials	Assessment of UN		

Name of the Paper: **Legislative Practices and Procedures (SEC) SEM III**

Month		Topic	Course	Paper Code/Name
July	**Theory**	***Powers and functions of people's representative at different tiers of governance*** Members of Parliament, State legislative assemblies Functionaries of rural and urban local self-government from Zila Parishad, Municipal Corporation to Panchayat/ward.	Honours SEC Paper	**Legislative Practices and Procedures**
	Practicals			
	Tutorials	Role of MLAs/MPs		
August	**Theory**	***Supporting the legislative process***		

		How a bill becomes law Role of the Standing committee in reviewing a bill Legislative consultants & the framing of rules and regulations.		
	Practicals			
	Tutorials			
	Assignment	Problems & Prospects of New Farm Acts		
September	**Theory**	***Supporting the Legislative Committees*** Types of committees, role of committees in reviewing government finances, policy, programmes, and legislation.		
	Practicals			
	Tutorials	Role of Standing Committees		
October	**Theory**	***Reading the Budget Document*** Overview of Budget Process Role of Parliament in reviewing the Union Budget, Examination of Demands for Grants of Ministries, Working of Ministries.		
	Practicals			
	Tutorials	Role of Media in Indian Democracy		
	Test	Unit III, IV & V		
November	**Theory**	***Support in media monitoring and communication*** Types of media and their significance for legislators; Basics of communication in print and electronic media.		
	Practicals			
	Tutorials	Revision		

Name of the Paper: **Comparative Government & Politics BA P III SEM**

Month		Topic	Course	Paper Code/Name
July	**Theory**	Powers and functions of people's representatives at different tiers of governance Members of Parliament, State Legislative Assemblies, functionaries of rural and urban local self-government from Zila Parishads/Municipal Corporation to Panchayat/Ward.	BA P Paper	**Comparative Government & Politics**
	Practicals			
	Tutorials	Assessing the role of MLAs & MPs		
August	**Theory**	Supporting the legislative process: How a Bill becomes a Law, Role of the Standing Committee in reviewing a Bill, Legislative Consultations, amendments to a Bill & The framing of Rules and Regulations.		
	Practicals			
	Tutorials	Differences between a bill & Law		
	Assignment	Write a Critique on the role of Parliamentary Committees		
September	**Theory**	Supporting the legislative committees Types of committees, Role of committees		

		in reviewing government finances, policy, programmes, and legislation.		
	Practicals			
	Tutorials	Critical role of committees in determining an act		
October	**Theory**	Reading the budget document: Overview of Budget Process, Role of Parliament in reviewing the Union Budget, Railway Budget, Examination of Demands for Grants of Ministries, Working of Ministries		
	Practicals			
	Tutorials	Union Budget		
	Test	Unite-II, III & IV		
November	**Theory**	Support in media monitoring and communication: Types of media and their significance for legislators. Basics of communication in print and electronic media		
	Practicals			
	Tutorials	Revision		

Name of the Paper: **Introduction to Political Theory SEM I**

Month		Topic	Course	Paper Code/Name
July	**Theory**	What is Politics?	BA P	**Introduction to Political Theory**
	Practicals			
	Tutorials			
August	**Theory**	What is Political Theory and what is its relevance?		
	Practicals			
	Tutorials			
	Assignment	Write an essay on the different view Politics?		
September	**Theory**	Democracy & Liberty		
	Practicals			
	Tutorials			
October	**Theory**	Equality & Justice,		
	Practicals			
	Tutorials			
	Test	Unit I &II		
November	**Theory**	Rights		
	Practicals			
	Tutorials			

Name of the Paper: **BA P in lieu of MIL SEM III**

Month		Topic	Course	Paper Code/Name
January	**Theory**	Globalization a) What is it?	BA P in lieu of MIL	**A Globalizing World**
	Practicals			
	Tutorials			

February	**Theory**	Dimensions Economic, Political, Technological and Cultural Dimensions		
	Practicals			
	Tutorials			
	Assignment	Dimensions of Globalisation		
March	**Theory**	Contemporary World Actors a) United Nations b) World Trade Organisation (WTO) Group of 77 Countries (G-77)		
	Practicals			
	Tutorials			
April	**Theory**	Global Environmental Issues (Global Warming, Bio-diversity, Resource Scarcities)		
	Practicals			
	Tutorials			
	Test	Unit I & II		
May	**Theory**	Poverty and Inequality, International Terrorism		
	Practicals			
	Tutorials	Revision		

(Dr. Haokam Vaiphei)
Assistant Professor
Department of Political Science

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Kalyani Krishna
Department: Botany **Semester : I/III/V 2019-20**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Introduction to paper and discussion about the paper	B.Sc. (H) Botany Semester V	Plant Physiology
		Cereals-wheat and rice: general account	B.Sc. (H) Botany Semester IV	Economic Botany
	Practicals	• To determine osmotic potential of plant cell sap by plasmolytic method	B.Sc. (H) Botany Semester V	Plant Physiology
		Cereals	B.Sc. (H) Botany Semester IV	Economic Botany
	Tutorials	----------		
AUGUST	**Theory:**	Essential and beneficial elements, macro and micronutrients, methods of study nad use, criteria of essentiality, deficiency symptoms, role, chelating agents	B.Sc. (H) Botany Semester V	Plant Physiology
		Cereals: origin, evolution, morphology, post-harvest processing, uses, green revolution, millets and pseudocereals Legumes: general account, importance to man and ecosystem Beverages: tea, coffee, morphology, processing, uses Oils and fats:description, classification, extraction, uses, health implications, groundnut, coconut, linseed, mustard	B.Sc. (H) Botany Semester IV	Economic Botany

	Practicals:	• To determine water potential of given tissue by weight method. • To study the effect of two environmental factors (light and wind) on transpiration by excised twig • To calculate stomatal index and stomatal frequency from two surfaces of leaves of a mesophyte and xerophytes. • To calculate the area of open stoma and percentage of leaf area open through stomata in a mesophyte and xerophytes (both surfaces).	B.Sc. (H) Botany Semester V	Plant Physiology
		• Legumes • Fruits • Sugar and starches • spices	B.Sc. (H) Botany Semester IV	Economic Botany
	Tutorials:	----------		
SEPTEMBER	**Theory:**	Nutrient uptake, soil as a nutrient reservoir, transport of ions across cell membrane, passive absorption, electrochemical gradient, facilitated diffusion	B.Sc. (H) Botany Semester V	Plant Physiology
		Natural rubber: para-rubber, tapping, processing and uses Drug-yielding plants: C*inchona, Digitalis, Papaver, Cannabis*	B.Sc. (H) Botany Semester IV	Economic Botany

	Practicals:	• To study the phenomenon of seed germination • To study the induction of amylase activity in germinating barley grains • To study the effect of different concentrations of IAA on coleoptiles elongation • To demonstrate bolting	B.Sc. (H) Botany Semester V	Plant Physiology
		• Beverages • Oils and fats • Essential oil-yielding plants • Rubber	B.Sc. (H) Botany Semester IV	Economic Botany
	Tutorials:	---		
	Assignment :	Given to all students for respective papers		
OCTOBER	**Theory:**	Active absorption, role of ATP, carrier systems, proton ATPase pump, ion flux	B.Sc. (H) Botany Semester V	Plant Physiology
		Tobacco: morphology, Processing, uses Fibres: cotton	B.Sc. (H) Botany Semester IV	Economic Botany
	Practicals:	• To demonstrate effect of auxins on rooting • To demonstrate suction due to transpiration • To demonstrate fruit ripening	B.Sc. (H) Botany Semester V	Plant Physiology
		• Drug-yielding plants • Tobacco • Fibre-yielding plants	B.Sc. (H) Botany Semester IV	Economic Botany
	Tutorials:	---		
	Test	Conducted for all papers		

NOVEMBER	**Theory:**	Uniport, co-transport, symport, antiport Fibres: Jute	B.Sc. (H) Botany Semester V B.Sc. (H) Botany Semester IV	Plant Physiology Economic Botany
	Practicals:	• Repetitions of experiments which students feel • Revision and test • Repetitions of experiments which students feel • Revision and test	B.Sc. (H) Botany Semester V B.Sc. (H) Botany Semester IV	Plant Physiology Economic Botany
	Tutorials:	--------		

SEMESTER WISE TEACHING PLAN
(July-Dec 2019)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Aditi Kothari-Chhajer

Department: BOTANY **Semester : I/III/V**

Month		Topics	Course	Paper
JULY	**Theory**	General characteristics, adaptations to land habit, Classification, Range of thallus organization of Brophytes	B.Sc(P) Life Sciences Sem I	Biodiversity
		Cell Fractionation- Differential and density Gradiant centrifugation, sucrose and CsCl2 density gradiant	B.Sc. (H) Botany Sem V	Analytical techniques in Plant Sciences
		Unit 2 : Photosynthesis –an introduction. Photosynthetic equation, structure of chloroplasts	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Practicals	• Study of Blotting techniques: Southern, Northern and Western, DNA fingerprinting, DNA sequencing, PCR through photographs.	B.Sc. (H) Botany Sem V	Analytical techniques in Plant Sciences
		• Models of viruses T-Phage and TMV, Line drawing/Photograph of Lytic and I,ysogenic Cycle. Types of Bacteria from	B.Sc.(P.) Life Science Sem I	Biodiversity
		• Demonstration of etiolation and de-etiolation	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Tutorials			
AUGUST	**Theory:**	Classification , morphology, anatomy and reproduction of Illarchantia	B.Sc(P) Life Sciences Sem I	Biodiversity
		Analytical centrifugation, ultracentrifugation, marker enzymes Unit 3: Radioisotopes-introduction, autoradipgraphy, pulse-chase experiment, uses of autoradiography in biological research	B.Sc. (H) Botany Sem V	Analytical techniques in Plant Sciences
		Light and Dark Reactions, Mechanism of Photolysis of water and oxygen evolution, Q- cycle, O2-evolving complex	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Practicals:	• To separate nitrogenous bases by paper chromatography. • To separate sugars by thin layer chromatography. • Isolation of chloroplasts by differential centrifugation	B.Sc. (H) Botany Sem V	Analytical techniques in Plant Sciences
		• Gram staining • Study of vegetative and reproductive structures or Nostoc, Chlamydomonas (electron 9 micrographs), Oedogonium, Vaucheria, Fucus*	B.Sc.(P.) Life Science Sem I	Biodiversity

		• Rhizopus and Penicillium: Asexual stage from temporary mounts and sexual structures through permanent slides. • Alternaria: Specimens/photographs and tease mounts.		
		• Chromatographic Separation of chloroplast pigments • Hills reaction and study of the effect of light intensity • Molls Half leaf experiment (Light and CO2)	B.sc. (H) Biol.Sc. Sem I	Light and Life
SEPTEMBER	**Theory:**	Morphology, anatomy and reproduction of Funaria	B.Sc(P) Life Sciences Sem I	Biodiversity
		Reaction Centres ,C3, C4 and CAM plants and their comparative account, Photoautotrophs, Photoheterotrophs and chemoautotrophs	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Practicals:	• To separate chloroplast pigments by column chromatography. • To estimate protein concentration through Lowry's methods. • PAGE. • AGE	B.Sc. (H) Botany Sem V	Analytical techniques in Plant Sciences
		• Puccinia: Herbarium specimens of Black Stem Rust of Wheat and infected Barberry leaves; section/tease mounts of spores on Wheat and permanent slides of both the hosts. • Agaricus: Specimens of button stage and full grown mushroom; Sectioning of gills of Agaricus. • Lichens: Study of growth forms of lichens (crustose, foliose and fruticose) • Mycorrhiza: ecto mycorrhiza and endo mycorrhiza (Photographs) • Marchantia, Funaria	B.Sc.(P.) Life Science Sem I	Biodiversity
		• Demonstration of oxygen liberation during photosynthesis using *Hydrilla*. • Mesurement of Light using Luxmeter • Blackmanns Law of limiting factors (using *Hydrilla)*	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Tutorials:			
OCTOBER	**Theory:**	Ecology and economic importance of bryophytes with special mention of Sphagnum.	B.Sc(P) Life Sciences Sem I	Biodiversity

		Mass spectrometry,X-Ray diffraction, X-Ray crystallography, Electrophoresis (AGE, PAGE, SDS-PAGE), Blotting Techniques (Northern, Southern and Western)	B.Sc. (H) Botany Sem V	DSE-1
		Oxygenic and Anoxygenic Photosynthesis, Photoperiodism: SDP,LDP and DNP plants, Vernalization	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Practicals:	• Study of different microscopic techniques using photographs/micrographs (freeze fracture, freeze etching, negative staining, positive staining, fluorescence and FISH). • Preparation of permanent slides (double staining). • ELISA	B.Sc. (H) Botany Sem V	Analytical techniques in Plant Sciences
		• Selaginella, Equisetum • Cycas- morphology (coralloid roots, bulbil, leaf), t.s. coralloid root, t.s. rachis, v.s. leaflet, v.s. microsporophyll, w.m. spores (temporary slides), l.s. ovule, t.s. root (permanent slide) • Pinus- morphology (long and dwarf shoots, w.m. dwarf shoot, male and female), w.m. dwarf shoot, t.s. needle, t.s. stem,, l.s./t.s. male cone, w.m. microsporophyll, w.m. microspores (temporary slides), l.s. female cone, t.l.s. & r.l.s. stem (permanent slide)	B.Sc.(P.) Life Science Sem I	Biodiversity
		• Study of red and blue light on seed germination and development of pigments • Study of photoautotrophic and photosynthetic bacteria, chloroplast, quantasome, bioluminescent plants	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Tutorials:			
NOVEMBER	**Theory:**	Cycas	B.Sc(P) Life Sciences Sem I	Biodiversity
		FISH, Chromosome Banding and Chromosome Painting	B.Sc. (H) Botany Sem V	DSE-1
		Discussion of previous years question papers and revision of concepts	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Practicals:	• Revision of experiments and Mock Practical	B.Sc. (H) Botany Sem V	Analytical
		• Completion of any unfinished practicals	B.Sc.(P.) Life Science Sem I	Biodiversity
		• Revision of experiments and Mock Practical	B.sc. (H) Biol.Sc. Sem I	Light and Life
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Pooja Gokhale Sinha

Department: Botany

Course: B. Sc. (H) Botany, Semester: III

Paper Titles: Reproductive Biology of Angiosperms

MONTH		Topics	Course	Paper Code/Name
JULY	**Theory**	• Structure of flower • Structure and function of Anther and its wall layers	B.Sc. (H) Botany	Reproductive Biology of Angiosperms
	Practicals	• Observe variation in structure and organization of floral parts of different flowers. • Observe stage-wise variation in anatomy and ultrastructure of anther and tapetum through permanent slides and electron micropgraphs	B. Sc. (H) Botany	Reproductive Biology of Angiosperms
AUGUST	**Theory:**	• Pollen Biology: Microssporogenesis, MGU • Pollen morphology and NPC system • Pollen viability, germination and abnormality • Structure of ovule • Female gametophyte and megasporogenesis • Organization of embryo sac and FGU	B. Sc. (H) Botany	Reproductive Biology of Angiosperms
	Practicals:	• Observe Pollen grains of various plants • Pollen germination by using different medium of germination • Structure of female gametophyte by permanent slides and electron micrographs	B. Sc. (H) Botany	Reproductive Biology of Angiosperms
SEPTEMBER	**Theory:**	• Types and pollination and associated adaptations • Pollen-pistil interaction and process of fertilization • Self incompatilbility: types and genetic mechanisms • Methods to overcome incompatibility with examples	B. Sc. (H) Botany	Reproductive Biology of Angiosperms

	Practicals	• Observe intra-ovarian pollination, test tube fertilization through photographs/ videos • Observe different pollination mechanisms through photographs/ videos and field visits	B. Sc. (H) Botany	Reproductive Biology of Angiosperms
OCTOBER	**Theory:**	• Endosperm: types • Embryo: Types of embryogeny and associated structures • Seed: structure, dispersal mechanism • Polyembryony and apomixis	B. Sc. (H) Botany	Reproductive Biology of Angiosperms
	Practicals	• Dissection of embryo at various stages of development from *Cucumis* and *Calliandra* • Study of seed dispersal mechanism	B. Sc. (H) Botany	Reproductive Biology of Angiosperms
NOVEMBER	**Theory:**	• Germline transformation: Techniques • Applications in biotechnology	B. Sc. (H) Botany	Reproductive Biology of Angiosperms
	Practicals	• Dissection of endosperm	B. Sc. (H) Botany	Reproductive Biology of Angiosperms

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Pooja Gokhale **Department: Botany**

Course: B.Sc. (H) Biological Sciences, Semester: III

Paper: Functional Ecology

MONTH		Topics	Course	Paper Code/Name
JULY	**Theory**	Introduction to Ecology History and overview of school of thoughts	B.Sc. (H) Bio. Sci.	Functional Ecology
	Practicals	Introduction to community Analysis and plotting of survivorship curves	B.Sc. (H) Bio. Sci.	Functional Ecology
AUGUST	**Theory:**	Levels of organization Community: Characteristics, structure	B.Sc. (H) Bio. Sci.	Functional Ecology
	Practicals:	• Plotting of Species- area curve by minimal quadrat size • Frequency, density and abundance of herbaceous vegetation of SVC campus	B.Sc. (H) Bio. Sci.	Functional Ecology
SEPTEMBER	**Theory**	Raunkiers life forms Community function	B.Sc. (H) Bio. Sci.	Functional Ecology

OCTOBER	**Practical**	Soil analysis by rapid field tests Analysis of physical characteristics of soil Principle and function of field instruments	B.Sc. (H) Bio. Sci.	Functional Ecology
	Theory	Succession: types and principles Hydrosere, xerosere and mesosere	B.Sc. (H) Bio. Sci.	Functional Ecology
	Practical	Analysis of water samples to determine DO and BOD	B.Sc. (H) Bio. Sci.	Functional Ecology
NOVEMBER	**Theory**	Introduction to ecosystem: Structure and function Nutrient cycling and energy flow	B.Sc. (H) Bio. Sci.	Functional Ecology
	Practical	Study of ecological adaptaions: Morphological and anatomical	B.Sc. (H) Bio. Sci.	Functional Ecology

Name of the Faculty: Dr. Pooja Gokhale Sinha

Department: Botany

Course: B. Sc. (H) Biological Sciences, Semester: V

Paper Titles: Growth and Reproduction

MONTH		Topics	Course	Paper Code/Name
JULY	**Theory**	• Structure of flower • Structure and function of Anther and its wall layers	B.Sc. (H) Biological Sciences	Growth and Reproduction
	Practicals	• Observe variation in structure and organization of floral parts of different flowers. • Observe stage-wise variation in anatomy and ultrastructure of anther and tapetum through permanent slides and electron micropgraphs	B.Sc. (H) Biological Sciences	Growth and Reproduction
AUGUST	**Theory:**	• Pollen Biology: Microssporogenesis, MGU • Pollen morphology and NPC system • Pollen viability, germination and abnormality • Structure of ovule • Female gametophyte and megasporogenesis • Organization of embryo sac and FGU	B.Sc. (H) Biological Sciences	Growth and Reproduction
	Practicals:	• Observe Pollen grains of various plants • Pollen germination by using different medium of germination • Structure of female gametophyte by permanent slides and electron micrographs	B.Sc. (H) Biological Sciences	Growth and Reproduction
SEPTEMBER	**Theory:**	• Types and pollination and associated adaptations • Pollen-pistil interaction and process of fertilization • Self incompatilbility: types and genetic mechanisms • Methods to overcome incompatibility with examples	B.Sc. (H) Biological Sciences	Growth and Reproduction
	Practicals	• Observe intra-ovarian pollination, test tube fertilization through photographs/ videos • Observe different pollination mechanisms through photographs/ videos and field visits	B.Sc. (H) Biological Sciences	Growth and Reproduction

OCTOBER	**Theory:**	• Endosperm: types • Embryo: Types of embryogeny and associated structures • Seed: structure, dispersal mechanism • Polyembryony and apomixis	B.Sc. (H) Biological Sciences	Growth and Reproduction
	Practicals	• Dissection of embryo at various stages of development from *Cucumis* and *Calliandra* • Study of seed dispersal mechanism	B.Sc. (H) Biological Sciences	Growth and Reproduction
NOVEMBER	**Theory:**	• Genetic regulation of flowering in plants • Genetic regulation of embryogenesis in plants	B.Sc. (H) Biological Sciences	Growth and Reproduction
	Practicals	• Dissection of endosperm	B.Sc. (H) Biological Sciences	Growth and Reproduction

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Neeti Mehla

Department: Botany

Academic year- 2019-2020 **Semester: I/III/V**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	❖ Introduction to Transcription in prokaryotes ❖ Plant water relations- Concept of water potential ❖ Cytoplasmic Inheritance- Chloroplast variegation in Chloroplast , Kappa particles in paramecium	❖ BSc.Life Sciences (V Sem) ❖ BSc. Botany (H) (V Sem) ❖ BSc. Botany (H) (III Sem)	❖ Cell and molecular Biology (1 Theory) ❖ Plant Physiology(1 Theory) ❖ Plant physiology and Metabolism (GE) 1Theory ❖ Concept of Genetics(2 theory)
	Practicals	Introduction to the paper of Cell and molecular Biology Introduction to Mendel's Monohybrid and Dihybrid ratio. Study of Gene interactions ratios 9:7,15:1	BSc.Life Sciences (V Sem) Bsc .Botany (H) III Semester	Cell and molecular Biology Concepts of Genetics
	Tutorials			
AUGUST	**Theory:**	❖ Transcription in prokaryotes and Eukaryotes and their differences ❖ Pathway of Water movement, concept of Symplast and Apoplast, Ascent of Sap and Transpiration. Factors affecting transpiration ,mechanism of stomatal movement,Antitranspirants and Guttation ❖ Types of mutations- somatic, germinal, spontaneous, induced auxotropic, biochemical and lethal mutations. Types of mutations- back, suppressor, substitution and frameshift mutations.	❖ BSc.Life Sciences (V Sem) ❖ BSc. Botany (H) (V Sem) ❖ BSc. Botany (H) (III Sem)	❖ Cell and Molecular Biology ❖ Plant physioplogy ❖ Concepts of Genetics

		Effect of physical mutagens- ionizing and non-ionizing radiations. Effect of chemical mutagens- base analogs, 5 Bromo uracil, nitrous acid, acridines and alkylating agents.		
	Practicals:	Study the effect of temperature and organic solvent on semipermeable membrane. Study of mitosis and meiosis To measure the cell size through micrometry. To study structure of plant cell Gene interaction using rajma seeds, complementary genes and dominant epistasis (9:6:1,12:3:1,13:3 and 9:3:4 ratios using Rajmah seeds Pedigree analysis for dominant and recessive autosomal and sex linked traits. To study various divisional stages of Meiosis using *Allium cepa* flower buds	BSc.Life Sciences (V Sem) BSc. Botany (H) (III Sem)	Cell and Molecular Biology Concepts of Genetics
	Tutorials:			
SEPTEMBER	**Theory:**	Different types of RNA and Translation in Prokaryotes and Eukaryotes. Translocation in the phloem- Pressure flow model for translocation of photoassimilates from source to sink cells. Detection of mutations- CLB method of mutation.Transposons, DNA repair mechanisms Structural changes in chromosomes- Deletion-definition, causes, mechanism, genetic effects examples and significance. Duplication, inversion and translocation-definition, causes, mechanism, genetic effects, examples and significance. Numerical changes in chromosomes.	❖ BSc.Life Sciences (V Sem) ❖ BSc. Botany (H) (VSem) ❖ GE III Sem ❖ BSc. Botany (H) (III Sem)	❖ Cell and molecular biology ❖ Plant Physiology ❖ Plant Physiology and Metabolism ❖ Concepts of Genetics
	Practicals:	Demonstration of Plasmolysis and Deplasmolysis. To study structure of NPC, special chromosomes and study of DNA packaging. Preparation of mitochondria from cheek epithelial cells. To study structure of Animal cell	BSc. Botany (H) (III Sem)	Concepts of Genetics

		And striated muscle fibre. Multiple alleles – concept and mechanism, blood typing (A,B,O and Rh factor). Study of various genetic Disorders like Sickle cell Anemia,Xeroderma pigmentosum,Albinism and Red green color Blindness To study various divisional stages of Meiosis using *Allium cepa* flower buds		
	Tutorials:			
	<u>Assignment:</u>		Bsc. Botany (H) IIISem	Concepts of Genetics
OCTOBER	**Theory:**	Genetic Code and principles of microscopy.Confocal microscopy,phase contrast microscopy and fluorescence microscopy.SEM,TEM Phloem loading and Phloem unloading. Numerical changes in chromosomes- euploidy, polyploidy- auto and allo polyploidy, mechanism, non-disjunction of chromosomes and examples- *Triticale Gossipium Raphanobrassica* ,wheat and modern bread wheat. Aneuploidy- causes and mechanism, examples *Datura* spp.,Down syndrome, Turner syndrome and klinefelter syndrome.	❖ BSc.Life Sciences (V Sem) ❖ BSc. Botany (H) (VSem) ❖ Botany GE ❖ BSc. Botany (H) (III Sem)	❖ Cell and Molecular Biology ❖ Plant Physiology ❖ Plant physiology and Metabolism ❖ Concept of genetics
	Practicals:	To study prokaryotic cell and Eukaryotic cell Study cell organelles. Demonstration of Dialysis Preparation of the karyotype and Idiogram from somatic metaphase chromosome. Study of Aneuploidy in humans-Down syndrome, Turner syndrome, Klinefeltor syndrome.Study of translocation ring and laggard, inversion bridge and mutlivalents. Meiosis from onion flower buds	BSc.Life Sciences (V Sem) BSc. Botany (H) (III Sem)	Cell and Molecular Biology Concepts of Genetics
	Tutorials:			
	<u>Test</u>		❖ BSc.Botany (H)III sem	Concept of Genetics

NOVEMBER	**Theory:**	X-ray diffraction analysis. Source and Sink relationship Classical versus molecular concept of gene, complementation test for functional allelism	❖ BSc.Life Sciences (V Sem) ❖ BSc. Botany (H) (V Sem) ❖ GE Plant Physiology and Metabolism ❖ BSc. Botany (H) (III Sem)	❖ Cell and Molecular Biology ❖ Plant Physiology ❖ Concept of Genetics
	Practicals:	Revision and Test for all courses	BSc.Life Sciences (V Sem) BSc. Botany (H) (V Sem) Botany GE III – Plant physiology and Metabolism BSc. Botany (H) (III Sem)	Cell and Molecular Biology Plant physiology Plant physiology and Metabolism Concepts of Genetics
	Tutorials:			

SEMESTER WISE TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Yogendra Kumar Gautam

Department: Botany

Semester: I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Discovery and general structure of Viruses.	B.Sc.(H) Botany (Sem: I)	BHCC-I/ Microbio. & Phycology
		Endosperm: General introduction &Types.	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Introduction to microbial world. General characteristics of Algae.	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Practicals	T.S. of Stem: Monocot: *Zea mays;* Dicot: *Helianthus*	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Study of vegetative and reproductive structures of *Nostoc*, through temporary preparations and permanent slides.	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Tutorials	----------		
AUGUST	**Theory:**	Photosynthesis: Introduction, Historical contribution of Julius von Sachs, Blackman, Emerson, Engelmann, Hill, Arnon.	B.Sc.(H) Botany (Sem: III)	GE-III/Plant Physio.& Metabolism
		Viruses: Discovery, physiochemical and biological characteristics; classification (Baltimore).General structure with special reference to viroids and prions.	B.Sc.(H) Botany (Sem: I)	BHCC-I/ Microbio. & Phycology
		Structure, functions and development of endosperm;	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Bacteria — Discovery, General characteristics and cell structure.	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Practicals:	Study of Dicot and Monocot leaf. Adaptive anatomy: Xerophyte (*Nerium* leaf) and Hydrophyte (*Hydrilla* stem). T.S. of Root: Dicot: *Helianthus* T.S. of root: Monocot: *Zea mays*	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Study of Vegetative and Reproductive Structures in *Vaucheria* and *Ectocarpus* through temporary preparations and permanent slides. Study of Asexual stage from Temporary/ Tease Mounts in *Rhizopus* and *Alternaria.* Study of Asexual stage from Temporary/ Tease Mounts in *Penicillium.*	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Tutorials:	----------		
SEPTEMBER	**Theory:**	Photosynthetic pigments (chlorophyll a and b, xanthophyll, carotene); Photosystem I and II, reaction center, antenna molecules. Electron transport and mechanism of ATP synthesis,	B.Sc.(H) Botany (Sem: III)	GE-III/Plant Physio.& Metabolism

		Viruses-General account of replication, DNA virus (T-phage), lytic and lysogenic cycle; RNA virus (TMV). Viral diseases	B.Sc.(H) Botany (Sem: I)	BHCC-I/ Microbio. & Phycology
		Embryo - Dicot and monocot embryo; Embryo-endosperm relationship. Vascular cambium – structure and function.	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Bacteria Reproduction — vegetative, asexual and recombination (conjugation, transformation and transduction); Economic importance.	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Practicals:	Study of embryo sac showing egg apparatus, microsporogenesis and Polygonum type of embryo sac. Structure of anther (young and mature), tapetum (amoeboid and secretory) (Permanent slides) Dissection of endosperm from developing seeds.	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Black Stem Rust of Wheat and Infected Barberry Leaves (Herbarium Specimens/ Photographs) *Puccinia*-Tease Mounts of Spores on Wheat, Section of infected portion of Wheat and Barberry (Permanent Slides). *Marchantia*-Morphology of Thallus, W.M. Rhizoids, V.S. Thallus through Gemma Cup, W.M. Gemma (all temporary slides), L.S. Sporophyte (Permanent slide). *Funaria*- Morphology of Gametophyte bearing Sporophyte, W.M. Rhizoids, W.M. Leaf, W.M. Operculum, W.M. Peristome, W.M. Spores (all temporary slides), L.S. Capsule (Permanent Slide).	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Tutorials:	----------		
	Assignment :	Assignment Topics allotted to students from whole the syllabus. Assigments collected	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
OCTOBER	**Theory:**	C3 pathway; C4 and CAM plants, Photorespiration Nitrogen metabolism- Biological nitrogen fixation.	B.Sc.(H) Botany (Sem: III)	GE-III/Plant Physio.& Metabolism
		Bacteria: Discovery, general characteristics. Types-archaebacteria, eubacteria, wall-less forms (mycoplasma and spheroplasts) Cell structure, nutritional types,	B.Sc.(H) Botany (Sem: I)	BHCC-I/ Microbio. & Phycology
		Vascular cambium- Development, elements and seasonal activity.	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Viruses – Discovery; General Structure- RNA virus (TMV) and DNA virus (T- phage).	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Practicals:	Dissection of endosperm from developing seeds. Calculation of percentage of germinated pollen in a given medium. Ultrastructure of mature egg apparatus cells through electron micrographs. Pollination types and seed dispersal mechanisms (including appendages, aril, caruncle).	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Selaginella- Morphology, Temporary Slides of T.S. Stem, W.M. Strobilus, W.M. Microsporophyll and Megasporophyll, L.S. Strobilus (Permanent Slide). *Equisetum*- Morphology, Temporary Slides of T.S. Stem (Internode), L.S. / T.S. Strobilus, W.M. Sporangiophore, W.M. Spores (Wet and Dry).	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity

	Tutorials:	----------		
	<u>Test</u>	Scheduled the date after mid sem. break		
NOVEMBER	**Theory:**	Nitrogen metabolism- Nodulation, nitrate and ammonia assimilation. Dinitrogenase, NR, NiR, transamination.	B.Sc.(H) Botany (Sem: III)	GE-III/Plant Physio.& Metabolism
		Bacteria: Reproduction-vegetative, asexual and recombination (conjugation, transformation and transduction), Bacterial diseases. Applied Microbiology: Economic importance of viruses and bacteria. Criteria, system of Fritsch, and evolutionary classification of Lee, significant contributions of important phycologists (F.E. Fritsch, G.M. Smith, R.N. Singh, T.V. Desikachary, H.D. Kumar, M.O.P.Iyengar).	B.Sc.(H) Botany (Sem: I)	BHCC-I/ Microbio. & Phycology
		Wood (heartwood and sapwood). Secondary growth in root and stem.	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Economic importance of viruses. Economic importance of bacteria.	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Practicals:	Types of ovules: anatropous, orthotropous, circinotropous, amphitropous/ campylotropous. Study of meristems through permanent slides. Tissues (parenchyma, collenchyma and sclerenchyma); Macerated xylary elements, Phloem.	B.Sc. Life Sc. (Sem: III)	CC-3/Plant Anatomy & Embryology
		Cycas- Morphology (Coralloid Roots, Leaf, Microsporophyll, Megasporophyll), T.S. Coralloid Root, V.S. Leaflet, V.S. Microsporophyll, W.M. Spores, L.S. Ovule *Pinus*- Morphology (Long and Dwarf Shoots, Male and Female Cones), W.M. Dwarf Shoot, T.S. Needle, L.S/ T.S. Male Cone, W.M. Microsporophyll, W.M. Microspores, L.S Female Cone. *Pteris*- Morphology, V.S. Sporophyll, W.M. Sporangium, W.M. Spores, W.M. Prothallus with Sex Organs.	B.Sc. Life Sc. (Sem: I)	LSCC-2/Biodiversity
	Tutorials:	----------		

SEMESTER WISE
TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Tabassum Afshan

Department: Botany

Semester : III

Month		Topics	Course	Paper Code/Name
AUGUST	**Theory**	1.Classification of tissues, Simple and Complex Tissues	B.Sc. Botany (Hons)	CC – V **(**Anatomy of Angiosperms**)**
		2.Methodology of Ethnobotanical studies : a).Field work b).Herbarium c).Ancient literature d).Archaeological findings e). Temples and sacred places	B.Sc. Botany (Hons) B.Sc. Life Science	SEC - Ethnobotany SEC - Ethnobotany
	Practicals	1. Dicot, Monocot Stem—T.S. Dicot, Monocot Root—T.S.	B.Sc. Botany (Hons)	CC – V **(**Anatomy of Angiosperms**)**
		2.Collection methods of plants from the field	B.Sc. Life Science	SEC - Ethnobotany
		3. Study of meristems through permanent slides and photographs 4. Tissues (parenchyma, collenchyma and sclerenchyma), Macerated xylary elements, Phloem (permanent slides, photographs) 5.Stem : Monocot: *Zea mays* , Dicot : *Helianthus*	B.Sc. Life Science	CC – III /Plant Anatomy and Embryology
	Tutorials			

SEPTEMBER	**Theory:**	1. Pits and plasmodesmata, Wall ingrowths and transfer cells, adcrustation and incrustation, Ergastic substances. 2. Stem : Organisation of shoot apex(Apical cell theory, Histogen theory, Tunica Corpus theory, Continuing meristematic residue, Cytohistological zonation. 3.Role of Ethnobotany in modern medicine : Medico Ethnobotanical sources in India, significance of the following plants in Ethnobotanical practices(along with their habitat and morphology)a)*Azardirachta indica*, b)*Ocimum sanctum*, c)*Vitex negundo*, d)*Gloriosa superba*	B.Sc. Botany (Hons) B.Sc. Botany (Hons) B.Sc. Life Science	CC – V / Anatomy of Angiosperms SEC : Ethnobotany SEC : Ethnobotany
	Practicals:	1. Parenchyma, Collenchyma, Sclerenchyma – P.S. 2.Periderm, Lenticels, Trichomes, Stomata. 3. Dicot, Monocot leaf -T.S. 4. Preparation and labelling of Herbarium specimens (10 plants) 5. Extraction of crude extracts from various ethnobotanically related plant material 6.Root : Monocot: *Zea mays* , Dicot : *Helianthus* 7. Leaf : Dicot and Monocot (only permanent slides) 8. Adaptive anatomy : Xerophyte (Nerium leaf), Hydrophyte (Hydrilla stem) 9. Structure of anther (young and mature)	B.Sc. Botany (Hons.) B.Sc. Life Science B.Sc. Life Science	CC – V / Anatomy of Angiosperms SEC : Ethnobotany CC – III /Plant Anatomy and Embryology
	Tutorials:			

OCTOBER	**Theory:**	1.Structure of Dicot and Monocot leaf, Kranz anatomy, Exodermis, Endodermis, Origin of lateral root 2. Types of vascular bundles, structure of Dicot and Monocot Stem 3. Leaf : Structure of Dicot and Monocot leaf, Kranz Anatomy 4. Root : Organisation of Root apex, (Apical cell theory, Histogen theory, Korper-Kappe theory), Quiescencentre, Root cap, Structure of Dicot and Monocot Root, Endodermis, Exodermis, Origin of Lateral root 5. Significance of following plants e) *Tribulus terrestris, f) Pongamia pinnata, g) Cassia auriculata, h)Indigofera tinctoria* 6. Role of Ethnobotany in modern medicine with special example – *Rauvolfia serpentine, Trichopus zeylanicus, Artemesia, Withania*	B.Sc. Botany (Hons.) B.Sc. Botany (Hons.) B.Sc. Life Science	CC – V / Anatomy of Angiosperms SEC : Ethnobotany SEC : Ethnobotany

	Practicals:	1. Kranz anatomy, Hydrophytes, Xerophytes, Heartwood, Sapwood, Tyloses, Secretory tissues –Lithocyst, Cavities, Laticifers	B.Sc. Botany (Hons.)	CC – V / Anatomy of Angiosperms
		2. Field Survey and collection of information on Ethnobotanical uses from traditional healers (any 2)	B.Sc. Life Science	SEC Ethnobotany
		3. To develop scientific knowledge of plants used for treatment of various purposes in ancient literature.		
		4.Types of ovules : anatropous, orthotropous, circinotropous, amphitropous, campylotropous 5. Female gametophyte: Polygonum (monosporic) type of Embryo sac (permanent slides/ photographs) 6. Pollination types and seed dispersal mechanism (including appendages, aril, caruncle) photographs/ specimens	B.Sc. Life Science	CC – III /Plant Anatomy and Embryology
	Tutorials:			
	<u>Assignment :</u>	Entire syllabus		
NOVEMBER	**Theory:**	1.Vascular Cambium – Strucure, Function and Seasonal Activity of Cambium, Secondary growth in root and Stem.	B.Sc. Botany (Hons.)	CC – V / Anatomy of Angiosperms
		2. Wood – Axially and radially oriented elements, types of rays and axial Parenchyma, cyclic aspects and reaction wood, sap wood and heart wood, ring and diffuse porous wood, early and late wood, tyloses, dendrochronology 3. Periderm – Development and composition of Periderm, Rhytidome and lenticels		
		4.Role of Ethnic groups in conservation of plant genetic resources, endangered taxa and forest management (participatory management), Ethnobotany as a tool to protect interests of ethnic groups, sharing of wealth concept with few examples from India 5. Ethnobotany and legal aspects – Biopiracy, Intellectual property rights and traditional knowledge	B. Sc. Botany (Hons) B.Sc. Life Science	SEC : Ethnobotany SEC : Ethnobotany

	Practicals:	1.Epidermal hairs, Trichomes, Maceration, Ring porous, Diffuse porous(Photographs) 2. Knowledge of some plants used in various ceremonies 3.Dissection of embryo/ endosperm from developing seeds 4. Calculation of percentage of germinated pollen in a given medium	B.Sc. Botany (Hons.) B.Sc. Botany (Hons) B.Sc. Life Science	CC – V / Anatomy of Angiosperms SEC : Ethnobotany CC – III /Plant Anatomy and Embryology
	Tutorials:			
	<u>Test</u>	Entire syllabus		

SEMESTER WISE TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Pamil Tayal **Department: Botany**

Semester : I/ III/ V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Overview of Prokaryotic ad eukaryotic cells, History and cell Theory, Differences between Plant and Animal Cells	B.Sc.(H) Biological Science (III Sem)	Concepts in Cell Biology (1 Theory)
		Structural organization of chloroplast, primary and accessory pigments	B.Sc. Botany (H) (I Sem)	Biomolecules and Cell Biology (2 Theory)
		Statistics, data, population	B.Sc. Botany (H) (V Sem)	Analytical Techniques in Plant Sciences (1 Theory)
		Collection of data primary and secondary - types	B.Sc. Botany (H) (V Sem)	Biostatistics (1 Theory)
	Practicals	Study of plant cell structure with the help of epidermal peel of Onion/ Crinum/ Rhoeo,	B.Sc. Botany (H) (I Sem)	Biomolecules and Cell Biology
		Study of Prokaryotic and eukaryotic structures using photographs Study of Cell wall, primary and secondary pits, plasmodesmata	B.Sc.(H) Biological Science (III Sem)	Concepts in Cell Biology
		Collection methods of plants from the field	BSc.Life Sciences (V Sem)	Ethnobotany

	Tutorials			

AUGUST	**Theory:**	Phages, Viriods, Mycoplasmas, Prions, Hierarchy in Cell Struture and cell molecules. Cell Cycle	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology (1 Theory
		Functions of chloroplast, Structural organization of mitochondria, genome of chloroplast and mitochondria (semiautonomous nature) and functions of mitochondria, Krebs cycle	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology (2 Theory)
		Samples, parameters; Representation of Data: Tabular, Graphical; Measures of central tendency	BSc. Botany (H) (V Sem)	Analytical Techniques in Plant Sciences (1 Theory)
		Methods of data collection procedures - merits and demerits.	BSc. Botany (H) (V Sem)	Biostatistics (1 Theory)
	Practicals:	Qualitative test for carbohydrates, proteins, lipids and proteins Demonstrate the phenomenon of protoplasmic streaming in Hydrilla leaf Separation of plant pigments by paper chromatography	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology
		Study of Different stages of mitosis by temporary preparation of onion root tips Study of different stages of meiosis by temporary preparations of onion flower buds	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology
		Preparation and labelling of Herbarium specimens(10 plants) Extraction of crude extracts from various ethnobotanically related plant material	BSc.Life Sciences (V Sem)	Ethnobotany

	Tutorials:			

SEPTEMBER	**Theory:**	Regulation of cell cycle, Microscopy (SEM, TEM, STEM, Fluorescence) Flow Cytometry	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology (1 Theory
		Golgi apparatus, its organization and functions, Lysosomes, Eukaryotic cell cycle, regulation of cell cycle, mitosis and meiosis	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology (2 Theory)
		Arithmetic mean, mode, median; Measures of dispersion: Range, mean deviation, variation, standard deviation	BSc. Botany (H) (V Sem)	Analytical Techniques in Plant Sciences (1 Theory)
		Classification - tabulation and presentation of data - sampling methods.	BSc. Botany (H) (V Sem)	Biostatistics (1 Theory)
	Practicals:	Study of cell and its organelles with the help of electron micrographs, To determine the enzyme activity assessment in plant extract (Catalase, Amylase and Urease), Study the effect of plamolysis and deplasmolysis Study the effect of organic solvent on membrane permeability	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology
		Study of the microscopic techniques – Florescence microscopy, autoradiography, freeze fracture, , freeze etching and shadow casting.	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology
		Preparation and labelling of Herbarium specimens (10 plants) Extraction of crude extracts from various ethnobotanically related plant material	BSc.Life Sciences (V Sem)	Ethnobotany

	Tutorials:			
	Assignment :	Topics from the entire syllabus		

OCTOBER	**Theory:**	Cell wall – distribution, chemical composition, functions and variations in prokaryotic and eukaryotic cells, primary and secondary cell walls, types of pits in plant cells	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology (1 Theory
		Role and structure of microtubules, microfilaments and intermediary filaments, structure of peroxisomes and its function	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology (2 Theory)
		Principles of microscopy; Light microscopy; Fluorescence microscopy; Confocal microscopy; Use of fluorochromes: (a) Flow cytometry (FACS)	BSc. Botany (H) (V Sem)	Analytical Techniques in Plant Sciences (1 Theory)
		Chi-square test for goodness of fit.	BSc. Botany (H) (V Sem)	Biostatistics (1 Theory)
	Practicals:	Study the effect of temperature on membrane permeability	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology
		Study of cell and its organelles with the help of electron micrographs		
		Study of electron micrographs of organelle		
		Cytochemical staining of DNA by feulgen, Cytochemical staining of Proteins by bromophenol blue, Cytochemical staining of Polysaccharides by PAS	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology
		Knowledge of some plants used in various ceremonies	BSc.Life Sciences (V Sem)	Ethnobotany

	Tutorials:			
	<u>Test</u>	Topics from the entire syllabus		
NOVEMBER	**Theory:**	Spectrophotometry, Mass spectrometry, Xray diffraction, Chromatography: Paper, TLC, gel-filtration, ionexchange, affinity and HPLC.	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology (1 Theory
		Structure of Endoplasmic Reticulum (RER and SER), functions of ER	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology (2 Theory)
		Transmission and Scanning electron microscopy – sample preparation for electron microscopy, cryofixation, negative staining, shadow casting, freeze fracture, freeze etching.	BSc. Botany (H) (V Sem)	Analytical Techniques in Plant Sciences (1 Theory)
		Revision of the syllabus	BSc. Botany (H) (V Sem)	Biostatistics (1 Theory)
	Practicals:	To study the effect of organic solvent and temperature on the permeability of plasma membrane, File evaluation and internal assessment	BSc. Botany (H) (I Sem)	Biomolecules and Cell Biology
		Study of TMV, Bacteriophages, Virioids, Prions, Mycoplasma through photographs Separation of nucleic acid bases by paper chromatography Study of positive and negative stating	BSc.(H) Biological Science (III Sem)	Concepts in Cell Biology
		Internal Assessment, Mock test	BSc.Life Sciences (V Sem)	Ethnobotany
		Internal Assessment, Mock test		
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Sunita Yadav **Department: Botany**
Semester : I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Introduction to paper and discussion about the paper	B.Sc. (H) Botany Semester V	Plant Physiology
		Introduction to paper Unit 6: Structure and properties of enzymes	GE-III	Plant physiology and metabolism
	Practicals	• To determine osmotic potential of plant cell sap by plasmolytic method	B.Sc. (H) Botany Semester V	Plant Physiology
		• To determine osmotic potential of plant cell sap by plasmolytic method	GE-III	Plant physiology and metabolism
	Tutorials	----------		
AUGUST	**Theory:**	Unit-5 Plant Growth regulators: Discovery, structure, bioassay and physiological roles	B.Sc. (H) Botany Semester V	Plant Physiology
		Unit 6: Mechanism of enzyme catalysis and inhibition Unit 7: Biological nitrogen fixation, nitrate and ammonium assimilation Unit8: Physiological roles of auxins, gibberellins	GE-III	Plant physiology and metabolism

	Practicals:	• To determine water potential of given tissue by weight method. • To study the effect of two environmental factors (light and wind) on transpiration by excised twig • To calculate stomatal index and stomatal frequency from two surfaces of leaves of a mesophyte and xerophytes. • To calculate the area of open stoma and percentage of leaf area open through stomata in a mesophyte and xerophytes (both surfaces).	B.Sc. (H) Botany Semester V	Plant Physiology
		• Comparison of the rate of respiration in any two parts of a plant. • To study the effect of two environmental factors (light and wind) on transpiration by excised twig • To demonstrate hill reaction	GE-III	Plant physiology and metabolism
	Tutorials:	----------		
SEPTEMBER	**Theory:**	Unit-6 physiology of flowering: photoperiodism, Flowering stimulus, florigen, vernalization, seed dormancy Unit-7 Phytochrome: discovery, chemical nature, role in photomorphogenesis, LER and HIR, mode of action	B.Sc. (H) Botany Semester V	Plant Physiology
		Unit 8: Physiological roles of cytokinins, ABA, ethylene Unit 9: Photoperiodism, phytochrome, red and far red responses on photomorphogenesis, vernalization Unit 1: Importance of water, water potential and its components, Transpiration, Root pressure, Guttation	GE-III	Plant physiology and metabolism

	Practicals:	• To study the phenomenon of seed germination • To study the induction of amylase activity in germinating barley grains • To study the effect of different concentrations of IAA on coleoptiles elongation • To demonstrate bolting	B.Sc. (H) Botany Semester V	Plant Physiology
		• To study the activity of catalase • To study the effect of pH on catalase • To study the effect of enzyme concentration on catalase	GE-III	Plant physiology and metabolism
	Tutorials:	---		
	Assignment :	Given to all students for respective papers		
OCTOBER	**Theory:**	Unit-1 Plant water relationship: water potential, aquaporins, pathway of water movement, root pressure, guttation, ascent of sap, transpiration	B.Sc. (H) Botany Semester V	Plant Physiology
		Unit 2: Essential elements, macro and micronutrients, criteria of essentiality of elements, role of essential elements Unit 3: Composition of phloem sap, girdling experiment, pressure flow model, phloem loading and unloading Unit 5: Glycolysis, anaerobic respiration	GE-III	Plant physiology and metabolism
	Practicals:	• To demonstrate effect of auxins on rooting • To demonstrate suction due to transpiration • To demonstrate fruit ripening	B.Sc. (H) Botany Semester V	Plant Physiology
		• To demonstrate bolting • To demonstrate effect of auxins on rooting • To demonstrate suction due to transpiration	GE-III	Plant physiology and metabolism
	Tutorials:	---		
	Test	Conducted for all papers		

NOVEMBER	**Theory:**	Unit-4 translocation in the phloem: pressure-flow hypothesis, phloem loading and unloading, source-sink relationship Revision and test Unit 5: TCA cycle, oxidative phosphorylation Revision and test	B.Sc. (H) Botany Semester V GE-III	Plant Physiology Plant physiology and metabolism
	Practicals:	• Repetitions of experiments which students feel • Revision and test • Repetitions of experiments which students feel • Revision and test	B.Sc. (H) Botany Semester V GE-III	Plant Physiology Plant physiology and metabolism
	Tutorials:	--------		

SEMESTER WISE TEACHING PLAN
2019-2020
ODD SEMESTER

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
(2019-20) (July-December)

Name of the Faculty: Dr. S. Venkata Kumar **Department: Commerce** **Semester: I**

Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
JULY-2019	**Theory**	1. **The Indian Contract Act 1872: (a)** Meaning, characteristics and kinds. (b) Essentials of a valid contracts- offer and acceptance,	1. B.Com. (Hons) – IA	1. BCH 1.3: Business Laws
	Practicals			
	Tutorials	1. Case laws of offer and acceptance presented by students**.**	1. B.Com. (Hons) - IA	1. BCH 1.3: Business Laws
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
AUGUST-2019	**Theory**	1. The Indian contract Act 1872: consideration, contractual capacity, free consent, legality of objects, void agreements,	1.Com. (Hons) – IA	1. BCH 1.3: Business Laws
	Practicals			
	Tutorials	**1.** Presentation of case studies vis-à-vis rules.	1. B.Com. (Hons) - IA	1. BCH 1.3: Business Laws
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
SEPTEMBER-2019	**Theory**	1. **The Indian contract Act, 1872:** discharge of contracts- modes of discharge including breach and its remedies, contingent contracts, quasi contracts, contract of indemnity and guarantee, contract of bailment and contract of Agency. 2. **The sales of goods Act, 1930**: the contract of sale, meaning and difference between sale and agreement to sell,	1. B.Com. (Hons) – IA	1. BCH1.3: Business Laws
	Practicals			

	Tutorials	1. Case study on contractual capacity & legality of objects	1. B.Com. (Hons) - IA	1. Business Laws
	Assignment	1. Topic allots for 1st assignment and collect it and topic allot for 2nd Assignment also.	1. B.Com. (Hons) – IA	1.BCH 1.3: Business Laws
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
OCTOBER-2019	**Theory**	1. **The sales of goods Act, 1930: C**onditions and warranties, transfer of ownerships in goods including sale by non-owners, performance of contract of sale.	1.B.Com. (Hons) – IA	1. BCH 1.3 Business Laws
	Practicals			
	Tutorials	1. Case study presentation by student on sale of Goods Act 1930.	1. B.Com. (Hons) - IA	1. BCH 1.3: Business Laws
	Test	1. 2nd week of October give Notice for conducting Internal Examination date Schedule and collect 2nd Assignment also.	1 B.Com. (Hons) - IA	1. BCH 1.3: Business Laws
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
NOVEMBER-2019	**Theory**	1. **The sales of goods Act, 1930:** unpaid seller: meaning and rights of unpaid seller against the goods and the buyer.	1. B.Com. (Hons) – IA	1. BCH 1.3: Business Laws
	Practicals			
	Tutorials	1. Case study presentation by student on sale of Goods Act 1930.	1. B.Com. (Hons) - IA	1.BCH 1.3: Business Laws
	Test	1. Conduct internal examination and finalize the internal Assessment.	1.B.Com (Hons)-IA	1. BCH 1.3: Business Laws.

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
(2019-20) Odd Semester

Name of the Faculty: Mrs. Sunita Chhabra **Department:** Commerce

Semester: 3rd

Month		Topics	Course	Paper Code/Name
JULY 2019	**Theory:**	1. Concept, functions of HRM. Roles, status and competencies of HR manager.	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Need for study management and functions, coordination.	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
	Tutorials:	1. Concept of Human Resource Management and its characteristics.	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Characteristics of management.	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
AUGUST 2019	**Theory:**	1. HR policies, evolution of HRM 2. Human Resource planning – quantitative and qualitative dimensions 3. Job Analysis 4. Job description and job specification	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Evolution of management thought – classical, human relation, behavior, system, contingency approach 2. MBO, Re-engineering, learning organization, fortune at the bottom of the pyramid	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application

	Tutorials:	1. Functions of HRM 2. Operative functions of HRM 3. Difference between personnel management and HRM	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Coordination – principles, system approach to management 2. Planning process 3. Growth strategies	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
SEPTEMBER 2019	**Theory:**	1. Recruitment – concept and sources 2. Selection – concept and process 3. Test and interview placement, induction and socialization 4. Emerging challenges of HRM – workforce diversity, empowerment, downsizing, VRS, work life balance	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Trends and challenges of management in global scenarios, emerging issues 2. Type of plans, Strategic planning, growth strategies, environmental analysis and diagnosis, SWOT/TOWS/WOTS-UP, BCG Matrix 3. Business environment and decision making – process, techniques, bonded rationality 4. Organizing – process, span of management, delegation of authority 5. Different types of authority – lines, staff and functional, principles of organization	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application

	Tutorials:	1. HR policy 2. Workload and workforce analysis 3. Different types of employment tests used for selection of employees	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Span of management 2. Quantitative and qualitative decision making 3. Fortune at the bottom of the pyramid	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
	Assignment:	1. Contingency approach to management 2. MBO, fortune at the bottom of the pyramid, management task in future	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
OCTOBER 2019	**Theory:**	1. Performance appraisal – nature, objectives and process 2. Performance management , methods of performance appraisal 3. Potential appraisal and employee counseling	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Decentralization, formal and informal organization, type of organization structure 2. Staffing – recruitment, selection, training and development, career development and performance appraisal 3. Motivation theories – Maslow, Herzberg, Mcgregors, Ouchi 4. Leadership theories, transactional and transformational	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application

	Tutorials:	1. Process of performance appraisal 2. Methods of performance appraisal	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Type of organizational structure – project and matrix 2. Motivation theories 3. Performance appraisal, selection of employees	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
	Test:	1. Unit 1 – Human Resource Management 2. Unit 2 – Acquisition of Human Resource	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Unit 1 – Introduction 2. Unit 2 – Planning 3. Unit 3 – Delegation of authority	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
NOVEMBER 2019	**Theory:**	1. e-HRM and Human Resource information system 2. Impact of HRM practices on organizational performance 3. HR audit and contemporary issues in HRM	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Communication process, oral, written, formal, informal 2. Barriers to communication over coming barriers 3. Control process, techniques – ratio analysis (ROI), budgetary control, EVA, MVA, PERT and CPM	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application
	Tutorials:	1. Human Resource information system 2. Contemporary issues in HR – outsourcing of HR activities, etc.	B.Com(Hons) – III Sem Sec A	BCH 3.1 Human Resource Management
		1. Techniques of control 2. Communication barriers and measures to resolve	B.Com(Hons) – III Sem Sec B	BCH 3.3 Management and Principles Application

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

(2019-20)

Name of the Faculty: Mrs. Sunita Chhabra

Department: Commerce

Semester: 5th

Month		Topics	Course	Paper Code/Name
July – August 2019	**Theory**	1. Introduction: Meaning, Nature and scope of marketing; Evolution of marketing concept and modern marketing concept; Marketing mix. 2. Marketing Environment- macro and micro environmental concepts; Consumer buying process; Factors influencing consumer buying decisions. 3. Market segmentation – meaning, benefits, and Bases of segmentation; Positioning – meaning and importance; Major bases of positioning a product	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	1. Nature of marketing. 2. Difference between marketing and selling. 3. Marketing mix and its components. 4. Marketing Environment – explain customer supplier, social cultural technological environment.		
September 2019	**Theory**	1. Product: Concept, Product classification; Major product decisions: Product attributes Branding, Packaging and labeling; After-sales service; Product life cycle, new product development. 2. Pricing: Significance, factors affecting price determination, major pricing methods; pricing policies and strategies. 3. Promotion: Nature and importance, promotion mix, Promotion tools, advertising personal selling, public relation, sales promotion and publicity.	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	1. Dimensions of product in 5 layers. 2. Branding. 3. Product life cycle. 4. Pricing		

	Assignment	1. Consumer Behaviour. 2. Write note on marketing and selling, significance of marketing.		
October 2019	**Theory**	1. Factors affecting promotion mix, integrated marketing communication approach. 2. Distribution: Channels of distribution – Meaning, importance, and functions; Factors affecting choice of distribution channel; Distribution logistics: Meaning, importance and decisions. 3. Retailing: Store based, Non store based, specialty store, super market, retail vending machine, mail order house.	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	1. Pricing policies and factors affecting pricing. 2. Skimming and penetration pricing. 3. Distribution logistics. 4. Retailing – store based and non-store based.		
	Test	1. Introduction 2. Consumer Behavior 3. Market selection 4. Product 5. Pricing 6. Promotion		
November 2019	**Theory**	1. Management of Retailing; an overview in India changing scenario. 2. Development and Issues in Marketing: Rural, Social, Online, Direct, Services, Green and relationship marketing, marketing ethics.	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	1. Promotion mix 2. Relationship, green, online and direct marketing.		

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Shruti Mathur
Department: Commerce **Semester: 3rd**

Month		Topics	Course	Paper Code/Name
July – August	**Theory**	**Unit 1- Introduction** • Concept; Management functions; Coordination. • Trends & Challenges of mngt. Emerging Issues in mngt **Unit 2- Planning** • Types of Plans; • Strategic Planning: Process, Importance, Limitations, Growth Strategies – Internal and External. • Environmental Analysis – Internal and External, SWOT/TOWS/WOTS-UP, BCG Matrix, Competitor Analysis; business environment	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
	Tutorials	• Case studies/ presentations/ management games related to the topics done in theory	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
September	**Theory**	**Unit 2- Planning** • Decision Making: Concept, Importance, Group Decision Making, Individual vs group Decision Making, Process, Perfect and Bounded Rationality, Techniques (Qualitative, Quantitative, MIS, DSS) **Unit 4 – Staffing & Directing** • Motivation: Concept, Importance, Intrinsic and Extrinsic, Major Motivation Theories – Maslow's, Hertzberg's, McGregor's X and Y, Ouchi's Z • Leadership- concept, importance, major leadership theories (Likert's theory, Blake & Mouton's Grid, House Path Goal theory, Fielder's situational leadership), Transactional & Transformational leadership	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
	Tutorials	• Case studies/ presentations/ management games related to the topics done in theory	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
	Assignment	• Assignment on various topics from the course	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
October	**Theory**	**Unit 4- Staffing & Directing** • Communication: Concept, purpose, process, oral & written communication, formal,informal communication networks, barriers to communication, overcoming barriers	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications

		Unit 3 - Organising • Concept • Process, Span of Management, Different types of Authority, Line Staff Functional, Decentralisation, and Delegation • Formal and Informal organization • Principles of Organising; • Types of Organising structure.		
	Tutorials	• Case studies/ presentations/ management games related to the topics done in theory	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
	Test	• Unit I – Introduction, • Unit II – Planning • Unit IV – Staffing & Directing	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
November	**Theory**	**Unit 5- Control** • Control, Process, Principles, Major Techniques, Ratio Analysis, ROI, Budgetary Control, EVA, MVA, PERT, CPM.	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications
	Tutorials	• Case studies/ presentations/ management games related to the topics done in theory	B.Com. (Hons.)	Paper BCH 3.3: Management Principles and Applications

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Shruti Mathur
Department: Commerce **Semester: 5th**

Month		Topics	Course	Paper Code/Name
July - August	**Theory**	1. Introduction: Meaning, Nature and scope of marketing; Evolution of marketing concept and modern marketing concept; Marketing mix. Marketing Environment- macro and micro environmental concepts; 2. Consumer buying process; Factors influencing consumer buying decisions. 3. Market segmentation – meaning, benefits, and Bases of segmentation; Positioning – meaning and importance; Major bases of positioning a product	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	Case studies/ presentations/ activities based on the theory chapters	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
September	**Theory**	4. Product: Concept, Product classification; Major product decisions: Product attributes Branding, Packaging and labeling; After-sales service; Product life cycle, new product development. 5. Pricing: Significance, factors affecting price determination, major pricing methods; pricing policies and strategies. 6. Promotion: Nature and importance, promotion mix, Promotion tools, advertising, personal selling, public relation, sales promotion and publicity. Factors affecting promotion mix, integrated marketing communication approach	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	Case studies/ presentations/ activities based on the theory chapters	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing

	Assignment	Assignment on various topics in the syllabus		
October	**Theory**	7. Distribution: Channels of distribution – Meaning, importance, and functions; Factors affecting choice of distribution channel; Distribution logistics: Meaning, importance and decisions. 8. Retailing: Store based, Non store based, specialty store, super market, retail vending machine, mail order house. Management of Retailing; an overview in India changing scenario.	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	Case studies/ presentations/ activities based on the theory chapters	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Test	1. Introduction 2. Consumer Behavior 3. Market selection 4. Product		
November	**Theory**	9. Development and Issues in Marketing: Rural, Social, Online, Direct, Services, Green and relationship marketing, marketing ethics.	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing
	Tutorials	Case studies/ presentations/ activities based on the theory chapters	B.Com. (Hons.) 5th Semester CBCS	Paper BCH 5.1 Principles of Marketing

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
JULY-DEC 2019

Name of the Faculty: Ms Pooja Jain **Department: Commerce** **Semester: I/III/V**

Month	Type of Class	Topics	Course	Paper Code/Name
JULY	**Theory**	**1.Unit I**:Nature and Scope, Difference between cost accounting and management accounting, cost control, cost reduction, cost management, difference between cost control, cost reduction and cost management. **2. Unit 1: Introduction:** Meaning, nature, concepts, advantages, disadvantages and reasons for transacting online, types of E-commerce 3. **Unit 1: Introduction:** Meaning of computers and functions of computer	**1. B.Com. (Hons) – V A+B** **2. B.Com. (Hons) – III A+B** **3. B.Com III**	1. BCH 5.3/Management Accounting 2. BCH 3.5 E-Commerce 3. BC 3.4 Computer Applications in business
	Practicals	Introduction to HTML, Creating and viewing a Webpage and basic HTML tags.	**1. B.Com. (Hons) – V A** **2. B.Com. (Hons) – V B**	1. BCH 3.5 E-Commerce Practical Part C
	Tutorials	Basics and significance of Management Accounting will be discussed	**1. B.Com. (Hons) – V A+B**	1. BCH 5.3/Management Accounting
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
AUGUST	**Theory**	**1. Unit IV:** a. Absorption versus variable costing: Distinctive features and income determination. b. Cost-Volume-Profit Analysis: Break-even analysis-algebraic and graphic methods. Contribution / sales ratio, key factor. Margin of safety. Angle of incidence. Determination of cost indifference point. **Unit II**: Budgeting and budgetary control: Concept of budget and budgetary control, objectives, merits, and limitations	**1. B.Com. (Hons) – V A+B** **2. B.Com. (Hons) – III A+B** **3. B.Com III**	1. BCH 5.3/Management Accounting 2. BCH 3.5 E-Commerce 3. BC 3.4 Computer Applications in business

		2. UNIT 1: Introduction: E-commerce business models (introduction, key elements of a business model and categorizing major E-commerce business models), forces behind e-commerce. Technology used in e-commerce: The dynamics of world wide web and internet (meaning, evaluation and features); Designing, building and launching e-commerce website(A systematic approach involving decisions regarding selection of hardware, software, outsourcing vs. In house development of website.) **UNIT 2: Security and Encryption** Needs and concepts, the e-commerce security environment : (dimension, definition and scope of e-security) 3. **Unit 1: Introduction:** Characteristics of computers, advantages and disadvantages of computers, basic computer operations, organization of computer, computer hardware setup, configuration		
	Practicals	Text Formatting tags, Images and hyperlinks	**1. B.Com. (Hons) – V A** **2. B.Com. (Hons) – V B**	1. BCH 3.5 E-Commerce Practical Part C
	Tutorials	Practical problems will be discussed related to following topics: a. Absorption versus variable costing: Distinctive features and income determination. b. Cost-Volume-Profit Analysis: Break-even analysis-algebraic and graphic methods. Contribution / sales ratio, key factor. Margin of safety. Angle of incidence. Determination of cost indifference point.	**2. B.Com. (Hons) – V A+B**	1. BCH 5.3/Management Accounting
	Assignment	One home assignment will be given from the topic: Absorption and variable Costing and CVP analysis	**1. B.Com. (Hons) – V A** **2. B.Com. (Hons) – V B**	BCH 5.3/Management Accounting

Month	Type of Class	Topics	Course	Paper Code/Name
SEPTEMBER	**Theory**	**Unit II:** Budgeting and budgetary control: Budget administration, Functional budgets, Fixed and flexible budgets, Zero base budget, Programme and performance budgets. **Unit VI**: Responsibility Accounting: Concept, Significance, Different Responsibility Centres, Divisional Performance Measurement – Financial Measures. **Unit V:** Decision making: Costs for decision making, variable costing and differential analysis as aids in making decisions – fixation of selling price, exploring new markets **2. UNIT 2: Security and Encryption** Security threats in e-commerce environment(security intrusions and breaches, attacking methods like hacking, sniffing, cyber- vandalism etc.), technology solutions (Encryption, security channels of communication, protecting networks and protecting servers and clients). **UNIT 6 : Security and legal aspects of e-commerce** Threats in E-commerce , security of clients and service provider; cyber laws – Relevant provisions of information technology act 2000, offences , secure electronic records and digital signatures penalties and adjudication. **3.Unit 1:** Introduction to networking, distributed computing, basic hardware for networks, network security, types of networks by scale	1. **B.Com. (Hons) – V A+B** 2. **B.Com. (Hons) – III A+B** 3. **B.Com III**	1. BCH 5.3/Management Accounting 2. BCH 3.5 E-Commerce 3. BC 3.4 Computer Applications in business
	Practicals	Lists, Tables and Forms	1. **B.Com. (Hons) – V A** 2. **B.Com. (Hons) – V B**	1.BCH 3.5 E-Commerce Practical Part C

	Tutorials	Practical questions and Presentation will be taken from the following topics: a.Budgeting and budgetary control: Budget administration, Functional budgets, Fixed and flexible budgets b.Decision making: Costs for decision making, variable costing and differential analysis as aids in making decisions – fixation of selling price, exploring new market	3. **B.Com. (Hons) – V A+B**	1. BCH 5.3/Management Accounting
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
OCTOBER	**Theory**	**1. Unit V:** Decision making: make or buy, product mix, operate or shut down, sell or process further **Unit III**: Standard costing and variance analysis: Meaning of standard cost and standard costing: advantages, limitations and applications, Variance analysis – material, labour, and sales variances, Disposition of variances, Control ratios. **2. UNIT IV:** E-payment system models and methods of e-payments (Debit cards, Credit cards, Smart cards, e-money), digital signatures (Procedures, working and legal position), payment gateways, online banking(meaning, concepts, importance, electronic fund transfer, automated clearing house, automated ledger posting), risks involved in e-payments. **UNIT V :On-line business transactions:** Meaning, purposes ,advantages and disadvantages of transacting online, E-commerce application in various industries like {banking ,insurance, payment of utility bills, online marketing **3.Unit 1:** Types of networks by organisation scope, types of networks by communication media, types of networks by topology	1. **B.Com. (Hons) – V A+B** 2. **B.Com. (Hons) – III A+B** 3. **B.Com III**	1. BCH 5.3/Management Accounting 2. BCH 3.5 E-Commerce 3. BC 3.4 Computer Applications in business

	Practicals	Forms, Frames and Cascading style sheets	**1. B.Com. (Hons) – V A** **2. B.Com. (Hons) – V B**	1. BCH 3.5 E-Commerce Practical Part C
	Tutorials	Practical questions and Presentation will be taken from the following topics: a. Decision making: make or buy, product mix, operate or shut down, sell or process further b Standard costing and variance analysis: Meaning of standard cost and standard costing: advantages, limitations and applications, Variance analysis – material, labour, and sales variances, Disposition of variances, Control ratios.	**1. B.Com. (Hons) – V A+B**	1. BCH 5.3/Management Accounting
	Test	1. Class Test will be conducted in the middle of the month from these topics: a. Nature and scope of management accounting b. Absorption and variable costing c. C-V-P Analysis d. Budgeting 2. Class Test will be conducted in the middle of the month from these topics: **a.** Introduction to E-commerce **b.** Security and Encryption **c.** E-payment system models and methods of e-payments 3. Class Test will be conducted in the middle of the month from these topics: **a.** Introduction to computers **b.** Networking	**1. B.Com. (Hons) – V A+B** **2. B.Com. (Hons) – III A+B** **3. B.Com III**	1. BCH 5.3/Management Accounting 2. BCH 3.5 E-Commerce 3. BC 3.4 Computer Applications in business

Month	Type of Class	Topics	Course	Paper Code/Name
NOVEMBER	**Theory**	**1.Unit III:** Standard Costing and Variance analysis: Overhead variance b. Revision will be taken from each unit. **2. UNIT V :On-line business transactions:** a.E-tailing (popularity ,benefits ,problems ,and features), online services (financial, travel and career), auctions (online portal ,online learning, publishing and entertainment) online shopping (amazon ,snapdeal, alibaba, flipkart , etc) b. Revision will be taken from above topics 3. Revision will be taken from each unit.	**1. B.Com. (Hons) – V A+B** **2. B.Com. (Hons) – III A+B** **3. B.Com III**	1. BCH 5.3/Management Accounting 2. BCH 3.5 E-Commerce 3. BC 3.4 Computer Applications in business
	Practicals	Miscellaneous questions will be discussed from examination point of view.	**1. B.Com. (Hons) – V A** **2. B.Com. (Hons) – V B**	1. BCH 3.5 E-Commerce Practical Part C
	Tutorials	a. Standard Costing and Variance analysis: Overhead variance b. Miscellaneous questions will be discussed from examination point of view.	**1. B.Com. (Hons) – V A+B**	1. BCH 5.3/Management Accounting

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Sindhu Mani Bag **Department: Commerce** **Semester: I/III/V**

Month	Type of Class	Topics	Course	Paper Code/Name
JULY-2019	**Theory**	1. Introduction, meaning and features, Administration of company laws, kinds of companies. 2. **Limited Liability partnership-2008:**.Introduction to LLP. 3. **Limited Liability partnership-2008:**.Introduction to LLP.	1. B.Com(P)-III 2. B.Com (Hons)-IA 3. B.Com (H) –IB	1.BC 3.1: Company Laws 2.BCH 1.3: Business Laws. 3. BCH 1.3: Business Laws
	Computer Lab	1. Income Tax Return	1.B,com (H) III(A&B)	1. BCH 3.2: Income Tax Laws & Practices
	Tutorials	1. Case laws present by the students. 2. Case laws present by the students. 3. Case laws present by the students**.**	1. B.Com. (P) – III 2.B.Com. (Hons) – IA 3. B.Com(H)-IB	1. BC 3.1:Company Laws 2. BCH 1.3:Business Laws. 3. BCH 1.3: Business Laws
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
August -2019	**Theory**	1. Formation of Companies, Memorandum of Association, Articles of Association. Prospectus and Shares and share capital. 2. **The Limited Liability Partnership-2008:**Formation and Incorporation of LLP, partners and their relations in LLP 3. **The Limited Liability Partnership-2008:**Formation and Incorporation of LLP, partners and their relations in LLP	1. B.Com. (P) – III 2. B.Com (H)-IA 3. B.Com (H)-IB	1. BC 3.1:Company Laws 2. BCH 1.3:Business Laws. 3. BCH1.3: Business Laws

	Computer Lab	1. Income Tax Practical: Income tax Return Filing	B.Com (H)-III(A&B)	1. BCH 3.2: Income Tax Laws and Practice.
	Tutorials	1. Case study present by the students. 2. case study present by the students. 3. case study present by the students.	1. B.Com. (P) – III 2. B.Com. (H) – IA 3. B.Com (H)-IB	1. BC 3.1 Company Laws **2.** BCH- 1.3:Business Laws 3. BCH 1.3: Business Laws
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
September-2019	**Theory**	1. Members and Shareholders, Director and Key Managerial Personnel, Shareholders Meeting, Accounts and Audit. **2. The Limited Liability Partnership-2008:** Financial Disclsures and Taxation of LLP, Conversion to LLP, **W**inding up and dissolution. **3. The Limited Liability Partnership-2008:** Financial Disclsures and Taxation of LLP, Conversion to LLP **W**inding up and dissolution..	1. B.Com. (P) – III 2. B.Com. (Hons) – IA 3. B.Com (H)-IB	1.BC 3.1:Company Laws 2.BCH 1.3:Business Laws. 3. BCH1.3: Business Laws
	Computer Lab	1.Income tax Practical: Income tax Return Filing	1.B.Com(H)-III (A&B)	1, BCH 3.2: Income Tax Laws & Practices

	Tutorials	1. Case laws present by the students. 2. Case laws present by the students. 3. Case laws present by the students.	1. B.Com. (P) – III 2. B.Com. (Hons) – IA 3. B.Com. (H) - IB	1. BC 3.1 Company Laws 2. BCH 1.3: Business Laws 3. BCH 1.3: Business Laws
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
October-2019	**Theory**	1. Dividend Provisions, Winding up of Companies, Tribunal and Court **2.The contract Act 1872:** Contract of Agency, **The Information Technology Act 2000: Introduction to IT Act,** Digital signature, electronic governance, attribution, acknowledgement, and dispatch of electronic records. **3. The contract Act 1872:** Contract of Agency, **The Information Technology Act 2000: Introduction to IT Act,** Digital signature, electronic governance, attribution, acknowledgement, and dispatch of electronic records.	1. B.Com. (P) – III 2. B.Com (Hons) –IA 3.B.Com (H)-IB	1. BC 3.1: Company Laws 2. BCH1.3:Business Laws . BCH 1.3: Business Laws
	Computer lab.	1. Income Tax Practical: Income tax Return Filing	1. B.Com (H)-III(A&B)	1. BCH 3.2: Income Tax Laws & Practices
	Tutorials	1. Case laws present by the students. 2. Case laws present by the students. 3. Case laws present by the students.	1. B.Com. (P) – III 2. B.Com. (Hons) – IA 3. B.Com (H) – IB	1.BC 3.1: Company Laws 2.BCH 1.3:Business Laws 3. BCH-1.3: Business Laws

	Assignment	1.Topic allotment for1st assignment & collect it and topic allotment for 2nd assignment. 2. Topics allotment and collect of 1st Assignment and Topic allotment for 2nd Assignment (sharing with Dr. S. Venkata kumar). 3. Topic allotment for1st assignment & collect it and topic allotment for 2nd assignment(sharing with Mrs. Priyanka &Miss. Simran).	B.Com. (P) – III 2. B.Com. (Hons) – IA 3.B.Com (H)-IB	1.BC 3.1:Company Laws 2.BCH 2.3: Business Laws. 3. BCH-2.2: Business Laws
	Test	1. Notification of date schedule and conduct of the Internal Examination. 2. Notification of date schedule and conduct of the Internal Examination. 3. Notification of date schedule and conduct of the Internal Examination.	1. B.Com. (P) – III 2. B.Com. (Hons) – IA 3. B.Com (H) -IB	1.BC 3.1:Company Laws 2.BCH 1.3:Business Laws 3.BCH 1.3:Business Laws
November-2019	**Theory**	1. The Depository System 2. **The Information Technology Act 2000:** Regulation of certifying authorities, digital signature certificate, duties of subscribers, penalties and adjudication, appellate tribunal, offences. 3. **The Information Technology Act 2000:** Regulation of certifying authorities, digital signature certificate, duties of subscribers, penalties and adjudication, appellate tribunal, offences.	1. B.Com. (P) – III 2. B.Com. (Hons) – IA 3. B.Com (H) -IB	1. BC 3.1: Company Laws 2.BCH 1.3:Business Laws 3.BCH 1.3:Business Laws
	Tutorial	Discussion relating to assessment of Assignment and Test.		
	Computer Lab	Conducting of Practical Examination	B.Com (H)-III (A&B)	1. BCH 3.2: Income Tax Laws & Practices
		Finalisation of Internal Assessment		

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
(2019-20) (Odd-Semester)

Name of the Faculty: Dr. Vinod Kumar
Department: Commerce
Course: B.Com (H)/B.Com
Semester: I/III/V

Month	Type of Class	Topics	Course	Paper Code/Name
JULY & AUGUST	**Theory**	1. Nature, Scope and Objectives of financial management, Time value of money, Risk & Return – (including Capital Asset Pricing Model); Long-term investment decisions: The capital budgeting process, cash flow estimation, pay-back period method, Accounting rate of return, net present value, net terminal value, internal rate of return and Profitability Index	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management
	Practical	1. Capital Budgeting methods with MS-EXCEL Software	1. B.Com. – (H) - V	1. BCH 5.2: Fundamentals of Financial Management
	Tutorials	1. Out of the topics covered in the class to be issued to the students for discussion and analytical thinking on it.	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
SEPTEMBER	**Theory**	1. Financing Decisions: Sources of long-term financing, Estimation of components of cost of capital, methods of calculating cost of equity, cost of retained earnings, cost of debt and preference capital, weighted average cost of capital, capital structure: theories of capital structure (Net Income, Net Operating Income, MM Hypothesis, Traditional approach), Operating and Financing Leverage, Determinants of capital structure.	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management

	Practical	1. Capital Budgeting methods with MS-EXCEL Software	1. B.Com. – (H) - V	1. BCH 5.2: Fundamentals of Financial Management
	Tutorials	1. Out of the topics covered in the class to be issued to the students for discussion and analytical thinking on it.	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
OCTOBER	**Theory**	1. Dividend Decisions: Theories of relevance and irrelevance of dividend decisions for corporate valuation: Walter's Model, Gordon's model, MM Approach, Cash and stock dividends, Dividend policies in practice	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management
	Practicals	1. Cost of capital and financing decisions	1. B.Com. (H) -V	1. BCH 5.2: Fundamentals of Financial Management
	Tutorials	1. Out of the topics covered in the class to be issued to the students for discussion and problem-solving with analytical thinking on it.	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management
	Assignment	1. Topics were allotted for making the assignments. 2. Topics were allotted for giving presentation in PPT format.	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
NOVEMBER	**Theory**	1. Working capital decisions: concepts of working capital, operating & cash cycles, sources of short-term finance, working capital estimation, cash management, receivables management, inventory management	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management
	Practicals	1. Capital Budgeting methods , cost of capital and financing decisions	1. B.Com. (H) -V	1. BC 5.2(a): Fundamentals of Financial Management
	Tutorials	1. Out of the topics covered in the class to be issued to the students for discussion and analytical thinking on it.	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of

				Financial Management
	Test	1. Test would be conducted on the concerned subject. 2. Test would be conducted on the concerned subject.	1. B.Com. (Hons) - V 2. B.Com. - V	1. BCH 5.2:Fundamental of Financial Management 2. BC 5.2: Fundamental of Financial Management

SEMESTER WISE TEACHING PLAN

SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Neha Singhal **Department: Commerce** **Semester : III/V**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	1. An Introduction to Income Tax-Sections 1 to 4, Scope of Total Income and Residential Status. 2. Deductions to be made in computing Total Income. 3. Introduction, Types of Audit, Audit Planning and Documentation, Internal Control System.	1) B.Com-III 2) B.com -V	1. BC-3.2/Income Tax 2. BC-5.1 (c) Auditing and CG
	Practicals	1. MS WORD	1.B.com-III	1.BC-3.4(a)/Computer Applications in Business
	Tutorials	1. Scope of Total Income and Residential Status.	1. B.Com-III	1. BC-3.2/ Income tax Law and Practice
AUGUST	**Theory:**	1. Scope of Total Income and Residential Status, Income Under the Head Salaries. 2. Deductions to be made in computing Total Income, Income Under the Head House Property. 3. Vouching, Verification of Assets, Verification of Liabilities, Appointment and Removal of Auditor, Rights and Duties of a Company Auditor.	1.B.Com-V 2.B.com -III	1. BC-3.2/Income Tax 2. BC-5.1 (c) Auditing and CG

	Practicals:	MS WORD	1.B.com-III	1.BC-3.4(a)/Computer Applications in Business
	Tutorials:	1. Income Under the Head Salary.	1. B.Com-III	1. BC-3.2/ Income tax Law and Practice
	Assignment	1. Assignment form Chapter –Income under the head Salary. 2. Assignment from Chapter- Verification, Appointment, Rights and Duties of an Auditor	1) B.Com-III 2) B.Com -V	1. BC-3.2/ Income Tax Law and Practice\ 2. BC-5.1 (c) Auditing
SEPTEMBER	**Theory**	1. Income under the head House Property, Income under the head Business/ Profession. 2. Auditor's Report, Liabilities of Auditor, Cost Audit, Management Audit, Tax Audit and Introduction to EDP Auditing. 3. CG-Theories, Models and Committees.	1. B.Com-V 2. B.com-III	1. BC-3.2/Income Tax 2. BC-5.1(c) Auditing and CG
	Practicals	MS Powerpoint	1.B.com-III	1.BC-3.4(a)/Computer Applications in Business
	Tutorials	1. Income under the head House Property, Income under the head Business/ Profession. 2. Cases in Verification of Assets and Verification of Liabilities	1. B.Com-III	1. BC-3.2/ Income tax Law and Practice
OCTOBER	**Theory**	1. Income under the head Business/ Profession, Income under the head Capital Gains, Income under the head Other Sources. 2. Set off or Carry forwards and set off of losses. 3. CG-Insider Trading, Rating Agencies, Clause 49, Green Governance, Whistle Blowing and Introduction to scams	1. B.Com-V 2. B.com-III	1. BC-3.2/Income Tax 2. BC-5.1 (c) Auditing and CG

	Practicals	MS POWERPOINT	1.B.com-III	1.BC-3.4(a)/Computer Applications in Business
	Tutorials	1. Income under the head Business/ Profession, Income under the head Capital Gains, Income under the head Other Sources. 2. Liabilities of Auditor	1. B.Com -III	1. BC-3.2/ Income tax Law and Practice
	Test	1. Test from Chapter- Residential Status and Income under the head Salary. 2. Test from Chapter- Types of Audit, Internal Control System, Appointment and Removal of an Auditor, Rights and Duties of Auditor.	1. B.com -III 2. B.Com -V	1. BC-3.2/Income Tax Law and Practices 2. BC-5.1 (c) Auditing and CG
	Assignment	1. Assignment from Chapter- Income under the head Business/ Profession	1. B.Com-III	1. BC-3.2/Income Tax Law and Practice
NOVEMBER	**Theory**	1. Clubbing of Income, Set off or Carry forwards and set off of losses, Deductions to be made in computing Total Income, Agricultural Income, Assessment of Individuals. 2. Clubbing of Income, Leading case of Supreme Court. 3. Corporate Scams, Business Ethics and CSR	1. B.Com-V 2. B.com - III	1. BC-3.2/Income Tax 2. BC-5.1 (c) Auditing and CG
	Practicals	1. Questions on MS Word and MS Powerpoint	1.B.com-III	1.BC-3.4(a)/Computer Applications in Business 1.
	Tutorials	1. Clubbing of Income, Agricultural Income, Assessment of Individuals.	1. B.Com -III	1. BC-3.2/ Income tax Law and Practice

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: SHILPA

Department: COMMERCE **Semester:**

I/III/V

Month		Topics	Course	Paper Code/Name
JULY 2019	**Theory**	1.Introduction to the basic accounting concepts , Financial accounting standards and the relevance of international financial reporting standards. 2.Meaning, nature,concepts,advantages, disadvantages and reasons for transacting online,Types of E-commerce,e-commerce business models Forces behind e-commerce	B.com(H) semester I (A+B) B.com(H) semester III(A+B)	BCH1.2/ Financial Accounting BCH3.5(a)/E-Commerce
	Practicals	Microsoft word	B.com (P) semester III	BC3.4(a)/Computer Application in Business
	Tutorials	Doubt session and taught students who joined late in this academic session the topics that they skipped.	B.com(H) semester I (A+B)	BCH1.2/ Financial Accounting
AUGUST 2019	**Theory:**	1.Dissolution of Partnership Firm ,Inland Branches 2.Technology used in e-commerce, Designing building and launching e-commerce webiste	B.com(H) semester I (A+B) B.com(H) semester III(A+B)	BCH1.2/ Financial Accounting BCH3.5(a)/E-Commerce
	Practicals:	Microsoft word and Microsoft excel	B.com (P) semester III	BC3.4(a)/Computer Application in Business
	Tutorials:	Doubt session and taught students who joined late in this academic session the topics that they skipped	B.com(H) semester I (A+B)	BCH1.2/ Financial Accounting
SEPTEMBER 2019	**Theory:**	1.Inland Branches , Final Accounts and Hire Purchase System	B.com(H) semester I (A+B)	BCH1.2/ Financial Accounting

		2.Unit II – security and encryption	B.com(H) semester III(A+B)	BCH3.5(a)/E-Commerce
	Practicals:	Microsoft excel and continuous evaluation of Microsoft word	B.com (P) semester III	BC3.4(a)/Computer Application in Business
	Tutorials:	Doubt session and taught students who joined late in this academic session the topics that they skipped	B.com(H) semester I (A+B)	BCH1.2/ Financial Accounting
	<u>Assignment :</u>	Topic- Dissolution and Inland branches Topic- Preparing an e-commerce business model	B.com(H) semester I (B) B.com(H) semester III(A+B)	BCH1.2/ Financial Accounting BCH3.5(a)/E-Commerce
OCTOBER 2019	**Theory:**	1.Hire Purchase System , NPO,Single entry system 2.Unit-VI security and legal aspects of E-commerce	B.com(H) semester I (A+B) B.com(H) semester III(A+B)	BCH1.2/ Financial Accounting BCH3.5(a)/E-Commerce
	Practicals:	Microsoft Excel and continuous evaluation	B.com (P) semester III	BC3.4(a)/Computer Application in Business
	Tutorials:	Doubt session and taught students who joined late in this academic session the topics that they skipped	B.com(H) semester I (A+B)	BCH1.2/ Financial Accounting
	<u>Test</u>	Topic-NPO and Hire Purchase system Topic-Dissolution and Inland Branches Topic-unit-1 ,2 and 4	B.com(H) semester I (B) B.com(H) semester I (A) B.com(H) semester III(A+B)	BCH1.2/ Financial Accounting BCH1.2/ Financial Accounting BCH3.5(a)/E-Commerce
	<u>Assignment</u>	Topic-Hire purchase system and final accounts Topic – Design an app for the good or service of your choice	B.com(H) semester I (A) B.com(H) semester III(A+B)	BCH1.2/ Financial Accounting BCH3.5(a)/E-Commerce
NOVEMBER 2019	**Theory:**	1.Depriciation and Inventory 2.Unit IV and V only substantiated what was alreadycovered in the practical class	B.com(H) semester I (A+B) B.com(H) semester III(A+B)	BCH1.2/ Financial Accounting BCH3.5(a)/E-Commerce
	Practicals:	Continuous evaluation of Microsoft word and Microsoft excel	B.com (P) semester III	BC3.4(a)/Computer Application in Business
	Tutorials:	Doubt session and signature of the students on the final assessment	B.com(H) semester I (A+B)	BCH1.2/ Financial Accounting

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Arpita Kaul Department: Commerce

Semester: I (2019-20)

Month		Topics	Course	Paper Code/Name
JULY 2019	**Theory**	Spectrum of business activities, Manufacturing and service sectors, India's experience of liberalization and globalization	B.Com	BC 1.3Business Organization and Management
	Practicals			
	Tutorials	Group discussion on the topic: Globalization boon or bane for India.	B.Com	BC 1.3Business Organization and Management
AUGUST 2019	**Theory:**	Technological innovations and skill development, Make In India Movement, Multinational and Transnational Companies, Social responsibilities and ethics	B.Com	BC 1.3Business Organization and Management
	Practicals:			
	Tutorials:	Prepare a business plan in group of five and present in tutorial class.	B.Com	BC 1.3Business Organization and Management
SEPTEMBER 2019	**Theory:**	Planning, Decision making, Strategy Formulation, Organizing, Departmentation- Functional, project, matrix, network, Delegation & decentralization of authority, dynamics of group behavior, Leadership: Content and Styles: Trait and Situational Theory	B.Com	BC 1.3Business Organization and Management

	Practicals:			
	Tutorials:	Visit housing.com and based on your requirements find a house you would like to buy for yourself.	B.Com	BC 1.3Business Organization and Management
	<u>Assignment :</u>	Prepare PowerPoint group presentations on topics assigned to you and present in class. Some of the topics like Brexit, Make in India Movement, and Any FMCG company (students are free to choose the company and talk about its managerial aspects.)	B.Com	BC 1.3Business Organization and Management
OCTOBER	**Theory:**	Motivation: Concept and Importance, Maslow Need Hierarchy Theory, Herzberg Two Factor Theory, McGregor and Ouchi Theory, Control: Concept and process, Communication: process and Barriers, TA, Johari Window. Change Management: Resistance to Change & strategies to manage change, conflict levels, causes & resolution. Functional & Dysfunctional aspects of conflict	B.Com	BC 1.3Business Organization and Management
	Practicals:			
	Tutorials:	Case Study: Jack Welsh Leading Organizational; Change at GE Koontz, H., & Weihrich, H. (2015). *Essentials of Management An International, innovation, and leadership perspective* (10th ed.). McGraw Hill Education.	B.Com	BC 1.3Business Organization and Management
	<u>Test</u>	On 5th October, 2016of syllabus from planning till leadership.	B.Com	BC 1.3Business Organization and Management
NOVEMBER	**Theory:**	Emerging issues in management, Conceptual framework of Marketing Management, Financial Management and Human Resource Management.	B.Com	BC 1.3Business Organization and Management
	Practicals:			
	Tutorials:	Case Study: Recruiting Talents at Infosys, Koontz, H., & Weihrich, H. (2015). *Essentials of Management An International, innovation, and leadership perspective* (10th ed.). McGraw Hill Education.	B.Com	BC 1.3Business Organization and Management

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Arpita Kaul **Department: Commerce**

Semester: III (2019-20)

Month		Topics	Course	Paper Code/Name
JULY 2019	**Theory**	Concept and functions, role, status and competencies of HR manager,HR Policies, Evolution of HRM	B.Com H	BCH 3.1Human Resource Management
	Practicals	Word: working with word document, inserting, filling and formatting a table. Mail merge, creating macros.	B.Com	BC 3.4(a) Computer Applications in Business
	Tutorials	Case Study: Left or Right, Rao, V. S.P.*Human Resource Management.* Taxmann.	B.Com H	BCH 3.1Human Resource Management
AUGUST 2019	**Theory:**	Emerging challenges of HRM-workforce diversity, empowerment, vrs, work life balance. Human resource planning: quantitative and qualitative dimesions, job analysis-job description & job specification, recruitment-concept & sources, selection-concept and process, test, interview, placement, induction, retention	B.com H	BCH 3.1Human Resource Management
	Practicals:	Converting word document to wed document, pdf, , hyperlinks. Protection of document- password. Referencing, manage sources and citations, creating bibliography. Review documents.	B.Com	BC 3.4(a) Computer Applications in Business
	Tutorials:	Case Study: You call this selection interview, Rao, V. S.P.*Human Resource Management.* Taxmann.	B.Com H	BCH 3.1Human Resource Management

September 2019	**Theory**	T&D: Concept, methods. Performance Appraisal: nature, objectives, process, methods, potential appraisal, employee counseling, job changes- transfers and promotion. HR Audit	B.Com H	BCH 3.1Human Resource Management
	Practicals	PowerPoint: preparing presentation, slides, handouts, adding transition to slide shows-special effects in detail-setting, slide timings.	B.Com	BC 3.4(a) Computer Applications in Business
	Tutorial	All the students have been given one month time to prepare their introduction for their job interviews, they will sit on the teacher's chair and introduce themselves on by one and then feedback will be given to them.	B.Com H	BCH 3.1Human Resource Management
	Assignment	Collect 20 advertisements for job frank first 10 on the basis of job description and job specification, explain the jds and jss of all.	B.Com H	BCH 3.1Human Resource Management
OCTOBER 2019	**Theory:**	Compensation-concept & policies, fringe benefits, employee stock option, job evaluation. Employee health and safety, employee welfare, social security	B.Com H	BCH 3.1Human Resource Management
	Practicals:	Present a ppt on your favourite topic use transitions,animations .Assignment: 3 word assignments one based on table, second on book cover page and third on references.	B.Com	BC 3.4(a) Computer Applications in Business

	Tutorials: **TEST**	A training program on business etiquettes. 7th October, 2016	B.Com H	BCH 3.1Human Resource Management

NOVEMBER	**Theory:**	E hrm, hris, contemporary issues in hrm.	B.Com H	BCH 3.1Human Resource Management
	Practicals:	MS Access	B.Com	BC 3.4(a) Computer Applications in Business
	Tutorials:	Group presentations by students on different topics of hrm and its practical applications.	B.Com H	BCH 3.1Human Resource Management

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Department of Commerce
(Year 2019-20)

Name of the Faculty: Mr. Ajit Singh **Department: Commerce** **Semester: I, III and V**

Month	Type of Class	Topics	Course	Paper Code/Name
July-August	**Theory**	1. Introduction Concept, nature and scope of management. Evolution of management thought. Trends and challenges. 2. Introduction Advertising-meaning, nature and importance of Advertising, types and objectives. Audience selection; Setting of advertising budget: determinants and major methods. Major media types : their merits and demerits; advertising through internet and interactive media. Issues and considerations: Factors influencing media choice; media selection, media scheduling.	1. B.Com – (H) II Semester-lll 2. B.Com-(P)III Semester-V	1. BCH-3.3 Mgmt Principles & Applications 2. BC 5.3(b) Advertising
	Practicals	1. Creation of Vouchers, Recording of Transactions;	1. B.Com. (Hons.) I	1.BCH 1.2: Financial Accounting.
	Tutorials	1. **Problems Case studies.** 2. Problems of advertising and case studies	1. B.Com. (Hons.) II 2. B.Com. (P) V	1. BCH-3.3 Mgmt Principles & Applications 2. BC 5.3(b) Advertising

Month	Type of Class	Topics	Course	Paper Code/Name
SEPTEMBER	**Theory**	1. Strategic Planning, Environmental Analysis, Decision-making. 2. Message Development Advertising creativity; Advertising appeals; Advertising copy and elements of print advertisement creativity; Tactics for print advertisement.	1. B.Com – (H) II Semester-lll 2. B.Com-(P)III Semester-V	1. BCH-3.3 Mgmt Principles & Applications 2. BC 5.3(b) Advertising
	Practicals	1. Preparing reports, cash book, bank book,	1. B.Com. (Hons.) I	BCH 1.2: Financial Accounting
	Tutorials	1. Problems & Case studies. 2. Problems of Message Development.	1. B.Com. (Hons) lll 2. B.Com. (P) V	1. BCH-3.3 Mgmt Principles & Applications 2. BC 5.3(b) Advertising
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
OCTOBER	**Theory**	1. Organising Process & Types. 2. Measuring Advertising Effectiveness Arguments for and against measuring effectiveness; Advertising testing process: Evaluating communication and sales effects: Prc- and post-testing techniques.	1.B.Com – (H) II Semester-lll 2.B.Com-(P)III Semester-V	1. BCH-3.3 Mgmt Principles & Applications 2. BC 5.3(b) Advertising
	Practicals	1. Preparation of Ledger accounts, trial balance,	1. B.Com. (Hons.) I	BCH 1.2: Financial Accounting.
	Tutorials	1. Problems and cases. 2. Problems and case studies related to Measuring Advertising Effectiveness.	1. B.Com. (H) ll Semester-III 2. B.Com. (P) III Semester- V	1. BCH-3.3 Mgmt Principles & Applications 2. BC 5.3(b) Advertising
	Assignment	1. Topics allotment for making the assignments. 2. Topics allotment for making the assignments.	1. B.Com – (H) II Semester-lll	1. BCH-3.3 Mgmt Principles &

			2. B.Com-(P)III Semester-V	Applications 2. BC 5.3(b) Advertising
	Test	1. Test would be conducted on the concerned subject after mid-semester break. 2. Test would be conducted on the concerned subject after mid-semester break.	1. B.Com – (H) II Semester-lll 2. B.Com-(P)III Semester-V	1. BCH-3.3 Magmt Principles & Applications 2. BC 5.3(b) Advertising
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
November	**Theory**	**1. Staffing and DIRecting Focus on Motivation, Leadership & Communication.** 2. Advertising Agency: Role, types and selection of advertising Social agency: Reasons for evaluating advertising agencies. Ethical and legal aspects of advertising in India; Recent developments and issues in advertising.	1. B.Com – (H) II Semester-lll 2. B.Com-(P)III Semester-V	1. BCH-3.3 Magmt Principles & Applications 2. BC 5.3(b) Advertising
	Practicals	1. Preparation of profit and loss account and balance sheet.	1. B.Com. (H) l	BCH 1.2: Financial Accounting
	Tutorials	1. Problems and cases studies. 2. Problems and cases studies on recent issues.	1. B.Com. (H) lll 2. B.Com. (P) V	1. BCH-3.3 Mgmt Principles & Applications 2. BC 5.3(b) Advertising

SEMESTER WISE TEACHING PLAN (2019-2020) ODD Semester

SRI VENKATESWARA COLLEGE

Name of the Faculty: Ms. Priyanka **Department: Commerce**

Semester : III/V

Month		Topics	Course	Paper Code/Name
JULY&AUGUST	**Theory**	1.Introduction –Basic concepts: Income tax act, Residential status , scope of total income on the basis of residential status and computation of income from house property and under the head salary. 2.Introduction – Characteristics of a company, lifting the corporate veil, types of company, formation of company and promoters.	1.B.com, B.com (H)-III 2. B.com -III	1. BC 3.2, BCH3.2 2. BC 3.1
	Practicals	Discuss related concepts of income tax return	B.com,B.com(H)-III	BC 3.2, BCH 3.2
	Tutorials	Revision of topics which discussed in the class	B.com,B.com (H)-III	BC3.2,BCH 3.2

SEPTEMBER	**Theory:**	1.Computation of profits and gains and Capital gain , agricultural income exempted income u/s 10 2. Computation of income from other sources , Deductions from gross total income 3. Different kinds of documents of company –Detail discussion on them	1.B.com -III 2. B.com (H) –III 3. B.com -III	1. BC -3.2 2. BCH- 3.2 3. BC -3.1
	Practicals:	Discussion on related concepts of ITR casestudy on ITR 1,and 2	B.com, B.com(H)-III	BC 3.2, BCH-3.2
	Tutorials:	Revision of topics which discussed in the class	B.com,Bcom(H) -III	BC3.1,3.2,BCH-3.2

	Assignment :	1 Topics were allotted for making the assignment 2. Topics were allotted for making the assignment	1 B.com -III 2 B.com -III	1 BC- 3.2 2 BCH- 3.2
OCTOBER	**Theory:**	1.Computation of income from other sources, deductions from gross total income and Agricultural income u/s 10 2. Deductions continued, Computation of total income and Tax liability 3. Company meeting	1.B.com –III 2. B.com (H) –III 3.B.com -III	1.BC -3.2 2.BCH -3.2 3 .BC -3.1
	Practicals:	1. Case study on ITR 1 and 2	B.com,B.com (h)-III	BC-3.2, BCH-3.2

	Tutorials:	Revision of topics which discussed in the class	B.com,B.com (H) -III	BC -3.2,BCH-3.2
	<u>Test</u>	1 Test would be conducted on the concerned subject	1 B.com–III 2 B.com (H) -III	1 BC -3.2,3.1 2 BCH -3.2
NOVEMBER	**Theory:**	1 Computation of total income and Tax liability and leading cases decided by income tax act and revision 2. Revision 3. winding up and Revision	1.B.com –III 2. B.com (H) -III 3.B.com –III	1 BC -3.2 2 BCH -3.2 3 BC -3.1
	Practicals:	Revision on case studies	B.com,B.com(H)	BC-3.2,BCH-3.2
	Tutorials:	Revision of topics which discussed in the class	B.com,B.com(H)	BC -3.2, BCH-3.2

SEMESTER WISE TEACHING PLAN (2019-20,ODD SEMESTER)

SRI VENKATESWARA COLLEGE

Name of the Faculty: Ms. Simranjeet Kaur **Department: Commerce** **Semester: I/III/V**

Month	Type of Class	Topics	Course	Paper Code/Name
July and August	**Theory**	1.Leadership, Motivation:concept and styles, Control, Communication, Johari Window, Change management: resistance to change and management of change. 2. Measures of Central Tendency, Measures of variation,Skewness, Moments and kurtosis.	1.B.Com.Prog.-I 2. B.Com (Hons)-IIIGE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics
	Tutorials and Practicals	Out of the topics covered in the class to be issued to the students for discussion and analytical thinking on it. Practical- Formation of frequency Distribution using pivot tables	1.B.Com Prog.-I 2. B.Com (Hons)-III GE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics

	Assignment -I	Topics allotment for making the assignments.	1.B.Com prog.-I 2. B.Com (Hons)-III GE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
September	**Theory**	1.Conflict level, causes and resolution, Emerging issues in management, spectrum of business activities, Liberalization, Gloabalization, make in india movement. 2. Probability and probability distribution, Simple correlation and regression analysis	1.B.Com.Prog.-I 2. B.Com (Hons)-IIIGE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics
	Tutorials and Practicals	Out of the topics covered in the class to be issued to the students for discussion and analytical thinking on it. Practical- Calculation of averages	1.B.Com Prog.-I 2. B.Com (Hons)-III GE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics
	Assignment- II	Topics allotment for making the assignments.	1.B.Com prog.-I 2. B.Com (Hons)-III GE	1.BC 1.3: Business Organisation and Management

				2.BCH 3.4 GE :Business Statistics
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
October	**Theory**	1.Social responsibility and ethics, franchising, outsourcing and e-commerce,forms of organization and their choice,entrepreneurial process, basic considerations in setting up an enterprise. 2. Regression analysis continued, Index numbers	1.B.Com.Prog.-I 2. B.Com (Hons)-IIIGE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics
	Tutorials and Practicals	Out of the topics covered in the class to be issued to the students for discussion and analytical thinking on it. <u>Practicals</u>- Measures of variation	1.B.Com Prog.-I 2. B.Com (Hons)-III GE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics
	Test	Test would be conducted on the concerned subject after mid-semester break.	1.B.Com.Prog.-I 2. B.Com (Hons)-IIIGE	1.BC 1.3: Business Organisation and Management

				2.BCH 3.4 GE :Business Statistics
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
November	**Theory**	1.Planning, organizing, delegation, dynamics of group behavior,conceptual framework of marketing management, financial management and HRM 2. Time series analysis, sampling concepts, sampling distribution and analysis	1.B.Com.Prog.-I 2. B.Com (Hons)-IIIGE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics
	Tutorials and Practicals	Out of the topics covered in the class to be issued to the students for discussion and analytical thinking on it. Practicals- Correlation and regression co-efficient	1.B.Com Prog.-I 2. B.Com (Hons)-III GE	1.BC 1.3: Business Organisation and Management 2.BCH 3.4 GE :Business Statistics

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Department of Commerce (Year 2019-20)
TEACHING PLAN

Name of the Faculty: Mr. Aashish Jain **Department: Commerce** **Semester: I/III/V**

Month	Type of Class	Topics	Course	Paper Code/Name
July-August	**Theory**	**Business Statistics** **a)** Mathematical averages including arithmetic mean, geometric mean & harmonic mean. Properties & applications. **b)** Positional averages: absolute & relative Range, quartile deviation, mean deviation, standard deviation & their co-efficient, properties of standard deviation/variance. Moments:- calculation & significance. Skewness, meaning, measurement using karl pearson & bowley's measures, concept of kurtosis. **Financial Accounting** **a)** Meaning of Hire Purchase **b)** Difference between Hire Purchase & Lease Purchase	1. B.Com – (H) III Semester-V 2. B.Com – (H) I Semester-I	**1.** BCH 5.4 (e): Business Statistics **2.** BC 1.2 : Financial Accounting
	Practical	**TALLY** **1.** Creating Company **2.** Creating Ledger **INCOME TAX** **1.** ITR filling – ITR 1	1. B.Com – (H) I Semester-I 2. B.Com – (H) II Semester – III	**1.** BC 1.2 : Financial Accounting **2.** BCH 3.2: Income Tax
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
SEPTEMBER	**Theory**	**Business Statistics** 1) Theory of probability, approaches to calculate probability 2) Calculation of event probabilities. Addition & multiplication laws of probability. 3) Condtional probability & bayes' theorem	1. B.Com – (H) III Semester-V 2. B.Com – (H) I Semester-I	**1.** BCH 5.4 (e): Business Statistics **2.** BC 1.2 : Financial Accounting

		4) Expectation & variance of a random variable 5) Probability distribution: a) Binomial distribution: probability distribution function, constants, shape, fitting of binomial distribution b) Poisson distribution: probability function c) Normal distribution, properties of normal curve. **Financial Accounting** **a)** Profit Computation (Stock & Debtor System) **b)** Partial & Full Repossession **c)** Calculation of various Interest on the basis of type of Hire Purchase		
	Practical	**TALLY** 1. Journal Entries of transactions **INCOME TAX** **1.** ITR Filling – ITR 1 & 2	1. B.Com – (H) I Semester-I 2. B.Com – (H) II Semester – III	**1.** BC 1.2 : Financial Accounting **2.** BCH 3.2: Income Tax
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
OCTOBER	**Theory**	**Business Statistics** a) Correlation analysis: meaning of correlation-simple , multiple & partial:linear & non-lenear, scatter diagram, pearson's co-efficient of correlation: calculation & properties. Probable & standard errors, rank correlation. b) Regression analysis. Principle of least squares & regression lines, regression equations & estimation. Standard error of estimates. **Financial Accounting** a) Basic Concept of Depreciation b) Types of Depreciation c) Calculation of Depreciation on both methods of depreciation – WDV & SLM	1. B.Com – (H) III Semester-V 2. B.Com – (H) I Semester-I	**1.** BCH 5.4 (e): Business Statistics **2.** BC 1.2 : Financial Accounting
	Practical	**TALLY** 1. Revision of All types of transactions **INCOME TAX** Revision of All ITR filling by doing various questions	1. B.Com – (H) I Semester-I 2. B.Com – (H) II Semester – III	**1.** BC 1.2 : Financial Accounting

				2. BCH 3.2: Income Tax
	Assignment	1. Topics allotment for making the assignments from probability & central value	1. B.Com – (H) III Semester-v	**1.** BCH 5.4 (e): Business Statistics
	Test	1. Test conducted on the concerned subject after mid-semester break.	1. B.Com – (H) III Semester-v	**1.** BCH 5.4 (e): Business Statistics
Month	**Type of Class**	**Topics**	**Course**	**Paper Code/Name**
November	**Theory**	**Business Statistics** **a)** Components of time series. Additive & multiplicative models **b)** trend analysis, fitting of trend line using principle of least squares- linear, second degree parabola & exponential. Conversion of annual linear trend equation to quarterly/monthly basis & vice-versa. Moving averages. **c)** Seasonal variations- calculation & uses. Simple averages, ratio to trend, ratio to moving averages & link-relatives methods. Uses of seasonal indices. **Financial Accounting** **a)** Concept of Department Accounting **b)** Type of Department Accounting **c)** Allocation of Department Expenses **d)** Methods of Departmental Accounting	1. B.Com – (H) III Semester-V 2. B.Com – (H) I Semester-I	**1.** BCH 5.4 (e): Business Statistics **2.** BC 1.2 : Financial Accounting

	Practical	External Exam conducted for Financial Accounting (TALLY) & Income Tax (ITR filling)	1. B.Com – (H) I Semester-I 2. B.Com – (H) II Semester – III	**1.** BC 1.2 : Financial Accounting **2.** BCH 3.2: Income Tax

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
(2019-20)

Name of the Faculty: Mohini Yadav
Department: Commerce **Semester:**

Month		Topics	Course	Paper Code/Name
July-August 2019	**Theory**	Unit-I: Introduction	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit I: Introduction to Organisations & Management Unit V: Context of Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		Unit 1: Regulations of Domestic Market Unit 2: Foreign Trade Policy and Procedures	B.COM – Sem V	BC 5.4 b – Economics Regilation of Domestic and Foreign Exchange Markets
	Tutorials/ Practical	Unit-I: Introduction	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit I: Introduction to Organisations & Management Unit V: Context of Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		Basics of Access and Excel – Loan Sheet, Capital Budgeting	B.COM – Sem III	BC 3.4a – Computer Applications of Business
September 2019	**Theory**	Unit-II: Depreciation accounting and inventory valuation	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit II: Entrepreneurship: Founding the Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		Unit 3: Industries Development Regulation	B.COM – Sem V	BC 5.4 b – Economics Regilation of Domestic and Foreign Exchange Markets
	Tutorials	Unit-II: Depreciation accounting and inventory valuation	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit II: Entrepreneurship: Founding the Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		MS Access questions upto 2 tables and Excel – Frequency Distribution, Depreciation	B.COM – Sem III	BC 3.4a – Computer Applications of Business

	Assignment	Depreciation accounting and inventory valuation	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit II: Entrepreneurship: Founding the Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		Unit 3: Industries Development Regulation	B.COM – Sem V	BC 5.4 b – Economics Regilation of Domestic and Foreign Exchange Markets
October 2019	**Theory**	Unit-IV: Branch and departmental accounting	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit III: Organisation of Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		Unit 4: Foreign Exchange Market	B.COM – Sem V	BC 5.4 b – Economics Regilation of Domestic and Foreign Exchange Markets
	Tutorials	Unit-IV: Branch and departmental accounting	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit III: Organisation of Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		MS Access questions up-to 3 tables and Excel – Regression, What-If-Analysis, Solver, Pivot	B.COM – Sem III	BC 3.4a – Computer Applications of Business
	Test	Depreciation, Inventory and Hire Purchase	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit II: Entrepreneurship: Founding the Business Unit III: Organisation of Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		Unit 3: Industries Development Regulation Unit 4: Foreign Exchange Market	B.COM – Sem V	BC 5.4 b – Economics Regilation of Domestic and Foreign Exchange Markets
November 2019	**Theory**	Unit-IV: Branch and departmental accounting	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit IV: Management of Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		Unit 5: FEMA 1999	B.COM – Sem V	BC 5.4 b – Economics Regilation of Domestic and Foreign Exchange Markets
	Tutorials	Unit-IV: Branch and departmental accounting	B.COM – Sem 1	BC 1.2 - Financial Accounting
		Unit IV: Management of Business	Generic Elective	BCH 1.4(b)-Business Organization and Management
		MS Access questions up-to 3 tables and Excel – Ratio Analysis, Word, PPT	B.COM – Sem III	BC 3.4a – Computer Applications of Business

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
July-November, 2019

Name of the Faculty: Dr. Neeru Kumar

Department: Electronics

Semester: Third

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	Number System and Codes	**B.Sc. Electronics**	CC VI/ Digital Electronics and VHDL
	Practicals:	**Sem III:** To verify and design AND, OR, NOT and XOR gates using NAND gates. **Sem III:** Introduction to PCB designing and various CAD software. **Sem III:** 1. Generate the Fibonacci series up to the given limit N and also print the number of elements in the series. 2. Find minimum and maximum of N numbers.		**CC VI**/ Digital Electronics and VHDL Lab **SEC**/Design and Fabrication of PrintedCircuit Boards **CCVII**/ C Programming and Data Structures
	Tutorials:			
AUGUST	**Theory:**	Logic Gates and Boolean algebra Combinational Logic Analysis and Design	**B.Sc. Electronics**	CC VI/ Digital Electronics and VHDL
	Practicals:	**Sem III:** 1.To convert a Boolean expression into logic gate circuit and assemble it using logic gate IC‘s. 2.Design a Half and Full Adder. 3.Design a Half and Full Subtractor. **Sem III:** Installation and introduction to EAGLE. Designing of the PCB layout of Blinky Box using IC 555 Timer. Designing of the PCB layout of Low Pass Filter using IC 741. Designing of the PCB layout of High Pass		**CC VI**/ Digital Electronics and VHDL Lab **SEC**/Design and Fabrication of PrintedCircuit Boards

		Filter using IC 741. **Sem III:** 3. Find the GCD of two integer numbers. 4. Calculate factorial of a given number. 5. Find all the roots of a quadratic equation Ax2 + Bx + C = 0 for non – zero coefficients A, B and C. Else report error. 6. Calculate the value of sin (x) and cos (x) using the series. Also print sin (x) and cos (x) value using library function. 7. Generate and print prime numbers up to an integer N.		**CCVII**/ C Programming and Data Structures
	Tutorials:			
SEPTEMBER	**Theory:**	Sequential logic design Programmable Logic Devices	**B.Sc. Electronics**	CC VI/ Digital Electronics and VHDL
	Practicals:	**Sem III:** 1.Design a seven segment display driver. 2. Design a 4 X 1 Multiplexer using gates 3.To build a Flip- Flop Circuits using elementary gates. (RS, Clocked RS, D-type). **Sem III:** Designing of the PCB layout of Band Pass Filter using IC 741 Designing of the PCB layout of Differentiator. Designing of the PCB layout of Integrator. **Sem III:** 8. Sort given N numbers in ascending order. 9. Find the sum & difference of two matrices of order MxN and PxQ. 10. Find the product of two matrices of order MxN and PxQ. 11. Find the transpose of given MxN matrix. 12. Find the sum of principle and secondary diagonal elements of the given MxN matrix. 13. Calculate the subject wise and student wise totals and store them as a part of the structure. 14. Maintain an account of a customer using classes		**CC VI**/ Digital Electronics and VHDL Lab **SEC**/Design and Fabrication of PrintedCircuit Boards **CCVII**/ C Programming and Data Structures

		23. Implement Insertion sort, Merge sort, Bubble sort, Selection sort.		
	Assignment			
	Tutorials:			
OCTOBER	**Theory**	Introduction to VHDL Behavioral Modeling Sequential Processing	**B.Sc. Electronics**	CC VI/ Digital Electronics and VHDL
	Practicals:	**Sem III**: 1.Design a counter using D/T/JK Flip-Flop. 2.Design a shift register and study Serial and parallel shifting of data. **Sem III:** Designing of the PCB layout of Full Wave Bridge Rectifier. Designing of the PCB layout of Half and Full Adder. Designing of the PCB layout of Half and Full Subtractor. **Sem III:** 15. Implement linear and circular linked lists using single and double pointers. 16. Create a stack and perform Pop, Push, Traverse operations on the stack using Linear Linked list 17. Create circular linked list having information about a college and perform Insertion at front, Deletion at end. 18. Create a Linear Queue using Linked List and implement different operations such as Insert, Delete, and Display the queue elements. 19. Implement polynomial addition and subtraction using linked lists. 20. Implement sparse matrices using arrays and linked lists. 21. Create a Binary Tree to perform Tree traversals (Preorder, Postorder, Inorder) using the concept of recursion. 22. Implement binary search tree using linked lists. Compare its time complexity over that of linear search.		**CC VI**/ Digital Electronics and VHDL Lab **SEC**/Design and Fabrication of PrintedCircuit Boards **CCVII**/ C Programming and Data Structures

	Tutorials:			
	<u>Mid Term Test</u>			
NOVEMBER	**Theory:**	Data types of VHDL	**B.Sc. Electronics**	CC VI/ Digital Electronics and VHDL
	Practicals:	**Sem III:** To implement all the hardware experiments in VHDL software. **Sem III:** Designing of the PCB layout of 4×1 Multiplexer.		**CC VI**/ Digital Electronics and VHDL Lab **SEC**/Design and Fabrication of PrintedCircuit Boards **CCVII**/ C Programming and Data Structures
	Tutorials:			

Teaching Plan for the Semester
July - December (2019)
Dr Lalita Josyula / Department of Electronics

Paper : BSc(Hons) / Electronics (III Sem) – C Programming & Data Structures

Subject / Month	Theory	Practicals
July	Introduction, Importance of C, Character set, Tokens, keywords,identifier, constants, basic data types,	1. Generate the Fibonacci series up to the given limit N and also print the number of elements in the series. 2. Find minimum and maximum of N numbers.
August	variables: declaration & assigning values. Structure of C program, Arithmetic operators, relational operators, logical operators, assignment operators, increment and decrement operators, conditional operators, bit wise operators, expressions and evaluation of expressions, type cast operator, implicit conversions, precedence of operators. Arrays-concepts, declaration, accessing elements, storing elements, two-dimensional and multidimensional arrays. Input output statement and library functions (math and string related functions). Decision making, branching & looping: Decision making, branching and looping: if, if-else, else-if, switch statement, break, for loop, while loop and do loop. Functions: Defining functions, function arguments and passing, returning values from functions. Assignment for 10 Marks -IA!!	3. Find the GCD of two integer numbers. 4. Calculate factorial of a given number. 5. Find all the roots of a quadratic equation Ax2 + Bx + C = 0 for non – zero coefficients A, B and C. Else report error. 6. Calculate the value of sin (x) and cos (x) using the series. Also print sin (x) and cos (x) value using library function. 7. Generate and print prime numbers up to an integer N.

September	Structures: defining and declaring a structure variables, accessing structure members, initializing a structure, copying and comparing structure variables, array of structures, arrays within structures, structures within structures, structures and functions. Pointers. Searching and sorting: Insertion sort, selection sort, bubble sort, merge sort, linear Search, binary search. Introduction to C++: Object oriented programming, characteristics of an object-oriented language. Written Test for 10 Marks -IA After Semester Break !!	8. Sort given N numbers in ascending order. 9. Find the sum & difference of two matrices of order MxN and PxQ. 10. Find the product of two matrices of order MxN and PxQ. 11. Find the transpose of given MxN matrix. 12. Find the sum of principle and secondary diagonal elements of the given MxN matrix. 13. Calculate the subject wise and student wise totals and store them as a part of the structure. 14. Maintain an account of a customer using classes 23. Implement Insertion sort, Merge sort, Bubble sort, Selection sort.
October	Data Structures: Definition of stack, array implementation of stack, conversion of infix expression to prefix, postfix expressions, evaluation of postfix expression. Definition of Queue, Circular queues, Array implementation of queues. Linked List and its implementation, Link list implementation of stack and queue, Circular and doubly linked list, Trees : Introduction to trees, Binary search tree, Insertion and searching in a BST, preorder, postorder and inorder traversal (recursive)	15. Implement linear and circular linked lists using single and double pointers. 16. Create a stack and perform Pop, Push, Traverse operations on the stack using Linear Linked list 17. Create circular linked list having information about a college and perform Insertion at front, Deletion at end. 18. Create a Linear Queue using Linked List and implement different operations such as Insert, Delete, and Display the queue elements. 19. Implement polynomial addition and subtraction using linked lists. 20. Implement sparse matrices using arrays and linked lists. 21. Create a Binary Tree to perform Tree traversals (Preorder, Postorder, Inorder) using the concept of recursion. 22. Implement binary search tree using linked lists. Compare its time complexity over that of linear search.
November	Final Exams	Submit Project Work ! Final Exams

Paper : Generic Elective (GE-II) / Sem I– Data Sciences

Subject / Month	Theory	Practicals

July	Introduction to Data Science: Concept of Data Science, Traits of Big data, Web Scraping, Analysis vs Reporting	Overview of Programming: Structure of a Python Program, Elements of Python Introduction to Python: Python Interpreter, Using Python as calculator, Python shell, Indentation. Atoms, Identifiers and keywords, Literals, Strings, Operators (Arithmetic operator, Relational operator, Logical or Boolean operator, Assignment, Operator, Ternary operator, Bitwise operator, Increment or Decrement operator)
August	Introduction to Programming Tools for Data Science: Toolkits using Python: Matplotlib, NumPy, Scikit-learn, NLTK; Visualizing Data: Bar Charts, Line Charts, Scatterplots; Working with data: Reading Files, Scraping the Web, Using APIs (Example: Using the Twitter APIs), Cleaning and Munging, Manipulating Data, Rescaling, Dimensionality Reduction	Creating Python Programs: Input and Output Statements, Control statements (Branching, Looping, Conditional Statement, Exit function, Difference between break, continue and pass.), Defining Functions, default arguments, Errors and Exceptions. Iteration and Recursion: Conditional execution, Alternative execution, Nested conditionals, The return statement, Recursion, Stack diagrams for recursive functions, Multiple assignment, The while statement, Tables, Two-dimensional tables
September	Mathematical Foundations: Linear Algebra: Vectors, Matrices; Statistics: Describing a Single Set of Data, Correlation, Simpson's Paradox, Correlation and Causation; Probability: Dependence and Independence, Conditional Probability, Bayes's Theorem, Random Variables, Continuous Distributions, The Normal Distribution, The Central Limit Theorem ; Hypothesis and Inference: Statistical Hypothesis Testing, Confidence Intervals, Phacking, Bayesian Inference Machine Learning: Overview of Machine learning concepts – Over fitting and train/test splits, Types of Machine learning – Supervised, Unsupervised, Reinforced learning, Introduction to Bayes Theorem, Linear Regression- model assumptions, regularization (lasso, ridge, elastic net),	Strings and Lists: String as a compound data type, Length, Traversal and the for loop, String slices, String comparison, A find function, Looping and counting, List values, Accessing elements, List length, List membership, Lists and for loops, List operations, List deletion.Cloning lists, Nested lists Python programs/ Exercises based on : NumPy, Scikit-learn, Scipy , NLTK; Visualizing Data: Bar Charts, Line Charts, Scatterplots using Matplotlib ; Working with Data using Pandas

October	Classification and Regression algorithms- Naïve Bayes, K-Nearest Neighbours, logistic regression, support vector machines (SVM), decision trees, and random forest, Classification Errors, Analysis of Time Series-Linear Systems Analysis, Nonlinear Dynamics, Rule Induction, Neural Networks Learning And Generalization, Overview of Deep Learning.	Object Oriented Programming: Introduction to Classes, Objects and Methods, Standard Libraries. 1. Write a programme in Python to predict the class of the flower based on available attributes. 2. Write a programme in Python to predict if a loan will get approved or not. 3. Write a programme in Python to predict the traffic on a new mode of transport. 4. Write a programme in Python to predict the class of user. 5. Write a programme in Python to indentify the tweets which are hate tweets and which are not. 6. Write a programme in Python to predict the age of the actors.
November	Final Exams	Submit Project Work ! Final Exams

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Academic Session 2019-2020 (Odd Semester)

Name of the Faculty: Dr. Nutan Kala Joshi

Department: Electronics

Semester: Theory : B.Sc(H) Electronics, Sem V

Practical : B.Sc(H) Electronics, Sem I
B.Sc(H) Electronics, Sem V

Month		Topics	Course	Paper Code/Name
JULY/August -2019	**Theory**	Unit-1 Vector Analysis: Scalars and Vectors, Vector Algebra, Rectangular (Cartesian) Coordinate System, Vector Components and Unit Vector, Vector Field, Products, Cylindrical Coordinates, Spherical Coordinates, Differential Length, Area and Volume, Line Surface and Volume integrals, Del Operator, Gradient of a Scalar, Divergence and Curl of a Vector, the Laplacian. Electrostatic Fields: Coulomb‘s Lawand Electric Field , Field due to Discrete and Continuous Charge Distributions, Electric Flux Density, Gauss‘s Law and Applications, Divergence Theorem and Maxwell‘s First Equation. Electric Potential, Potential due to a Charge and Charge distribution, Electric dipole Electric Fields in Conductors, Current and Current Density, Continuity of Current, Metallic Conductor PropertiesDielectric materials, Polarization, Dielectric Constant, Isotropic and Anisotropic dielectrics, Boundary conditions, Capacitance and Capacitors. Electrostatic Energy and Forces Plus Unit –II Poisson’s Equation and Laplace’s Equation (Introduction) Divergence and Stoke Theorem Maxwells 1st and 2nd Equation Scaler Potential	B.Sc(H) Electronics Sem-V	Core-Course-XII/ Electromagnetics
	Practical	1.Understanding and Plotting Vectors 2. Transformation of vectors into various coordinate systems. 3. 2D and 3D Graphical plotting with change of view and rotation.	B.Sc(H) Electronics Sem-V	Core-Course-XII/ Electromagnetics

		SEM V : Introductory Lab/ Program to implement Bisection Method , Secant Method and Regula falsi method.	B.Sc(H) Electronics Sem-V	DSE-2 Lab : Numerical Techniques
		Familiarization with a) Resistance in series, parallel and series – Parallel. b) Capacitors & Inductors in series & Parallel. c) Multimeter – Checking of components. d) Voltage sources in series, parallel and series – Parallel e) Voltage and Current dividers Verification of Kirchoff's Law. Verification of Norton's theorem. Verification of Thevenin's Theorem.	B.Sc.(Hons) Electronics, Sem I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
SEPTEMBER	**Theory**	Boundary Conditions, Method of Images. Dielectric materials, Polarization, Dielectric Constant, Isotropic and Anisotropic dielectrics UNIT-2 Poisson's Equation and Laplace's Equation: Derivation of Poisson's and Laplace's equation,Uniqueness Theorem, Examples of Solution of Laplace's Equation: Cartesian, Cylindrical and SphericalCoordinates.Magnetostatics: BiotSavert's lawand Applications, Magnetic dipole, Ampere's Circuital Law, Curl and Stoke's Theorem, Maxwell'sEquation, Magnetic Flux and Magnetic Flux Density, Scalar and Vector Magnetic Potentials Magnetization in Materials and Permeability, Anisotropic materials, Magnetic Boundary Conditions, Inductors and Inductances, Magnetic Energy, Magnetic Circuits. Inductances and Inductors, Magnetic Energy, Forces and Torques.	B.Sc(H) Electronics Sem-V	Core-Course-XII/ Electromagnetics
	Practicals	4. Representation of the Gradient of a scalar field, Divergence and Curl of Vector Fields. 5. Plots of Electric field and Electric Potential due to charge distributions. 6. Plots of Magnetic Flux Density due to current carrying wire. Program to implement Newton Raphson Method , Trapezoidal rule , Simpson's rule and Runge Kutta Method.	B.Sc(H) Electronics Sem-V B.Sc(H) Electronics Sem-V	Core-Course-XII/ Electromagnetics DSE-2 Lab : Numerical Techniques

		Verification of Superposition Theorem. Verification of the Maximum Power Transfer Theorem. Measurement of Amplitude, Frequency & Phase difference using CRO.	B.Sc.(Hons) Electronics, Sem I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
	Assignment			
OCTOBER	**Theory**	Unit-3 Varying Fields and Maxwell's Equations: Faraday's Law of Electromagnetic Induction,Stationary Circuit in Time - Varying Magnetic Field, Transformer and Motional EMF, Displacement Current, Maxwell's Equations in differential and integral form and Constitutive Relations. Potential Functions, Lorentz gaugeand the Wave Equation for Potentials, Concept of Retarded Potentials. Electromagnetic Boundary Conditions. Time-Harmonic Electromagnetic Fields and use of Phasors Unit-4 Electromagnetic Wave Propagation: Harmonic Electromagnetic Fields and use of Phasors, the Electromagnetic Spectrum, Wave Equation in a source free isotropic homogeneous media.	B.Sc(H) Electronics Sem-V	Core-Course-XII/ Electromagnetics
	Practicals:	7. Programs and Contour Plots to illustrate Method of Images 8. Solutions of Poisson and Laplace Equations –contour plots of charge and potential distributions	B.Sc(H) Electronics Sem-V	Core-Course-XII/ Electromagnetics
		Program to implement Euler-Cauchy Method and Gauss-Jordon Method	B.Sc (H) Electronics Sem-V	DSE-2 Lab : Numerical Techniques
		RC Circuits: Time Constant, Differentiator, Integrator. Designing of a Low Pass RC Filter and study of its Frequency Response. Designing of a High Pass RC Filter and study of its Frequency Response.	B.Sc.(Hons) Electronics, Sem I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
	Mid Term Test			
NOVEMBER	**Theory:**	Uniform Plane Waves in Lossless and Lossy unbounded homogeneous media, Wave Polarization, Phase and Group velocity, Flow of Electromagnetic Power and Poynting Vector. Uniform Plane wave incident on a Plane conductor boundary, concept of reflection and standing wave. Guided Electromagnetic Wave Propagation: Waves	B.Sc(H) Electronics Sem-V	Core-Course-XII/ Electromagnetics

		along Uniform Guiding Structures, TEM, TE and TM waves, Electromagnetic Wave Propagation in Parallel Plate and Rectangular Metallic Waveguides		
	Practicals:	9. Introduction to Computational Electromagnetics: Simple Boundary Value Problems by Finite Difference/Finite Element Methods	B.Sc (H) Electronics Sem-V	Core-Course-XII/ Electromagnetics
		Program to implement Gauss-Seidel Iteration	B.Sc (H) Electronics Sem-V	DSE-2 Lab : Numerical Techniques
		Study of the Frequency Response of a Series LCR Circuit and determination of its (a) Resonant Frequency (b) Impedance at Resonance (c) Quality Factor Q (d) Band Width.	B.Sc.(Hons) Electronics, Sem I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab

SEMESTER-WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Sunita Jain

Department: Electronics

Semester: V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Introduction to microprocessor, Different types, Difference between microprocessor and microcontroller, Introduction to 8085 microprocessors	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers
	Practical	Sem V: Program for addition and subtraction using 8085 microprocessors **SEM V** : Introductory Lab Sem III: Half Wave Rectifiers with C-filter, and Zener Regulation	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers DSE-2 Lab : Numerical Techniques Core Course V
AUGUST	**Theory**	Basic architecture of 8085 microprocessors, Block diagram, Instruction set, Addressing modes, Memory mapping and I/O mapping	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers
	Practical	Sem V: Program for multibyte addition and subtraction, Program for block movement of data, Program for ascending and descending order Sem V: Program to implement Bisection Method , Secant Method and Regula falsi method. Sem III : Full Wave (Bridge and center tapped) Rectifiers with C-filter, and Zener and load Regulation , Clipping and Clamping networks	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers DSE-2 Lab : Numerical Techniques Core Course V

SEPTEMBER	**Theory**	Interrupt structure of 8085 microprocessors, Various interrupts, Latency and response time, Concept of interfacing of various devices with 8085 microprocessors using interrupt Introduction to microcontrollers, Different types of microcontrollers, CISC & RISC architecture, Introduction to PIC16F887 microcontroller	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers
	Practical	Sem V: Program for GCD, Program for truth table of logic gates, Fibonacci series, Program to find minimum and maximum among N numbers, Division of 16-bit number Sem V: Program to implement Newton Raphson Method , Trapezoidal rule , Simpson‘s rule and Runge Kutta Method. Sem III: DC Biasing: Fixed Bias, Collector to base feedback and Voltage divider, CE Amplifier Design its and frequency response	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers DSE-2 Lab : Numerical Techniques Core Course V
	<u>Assignment</u>	Programs based on 8085 microprocessors	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers
OCTOBER	**Theory**	Instruction set of PIC microcontrollers, I/O ports, Timer and interrupts, Addressing modes and Introduction to interfacing	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers
	Practical	Sem V: Interfacing of PIC microcontroller with LEDs, Stepper motor, Generation of different waveforms, A/D converter Sem V: Program to implement Euler-Cauchy Method and Gauss-Jordon Method Sem III:, Power Amplifiers: Class A, B and C, Hartley, Colpitts.	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers DSE-2 Lab : Numerical Techniques Core Course V
	<u>Mid Term Test</u>	Complete 8085 microprocessors, Introduction to PIC microcontroller	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers
NOVEMBER	**Theory**	Interfacing of various I/O devices with PIC microcontroller	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers

	Practical	Sem V: Serial communication between microcontroller and PC Sem V : Program to implement Gauss-Seidel Iteration Sem III : Phase shift Oscillator	B.Sc. (H)	Core Course-XI Microprocessor and microcontrollers DSE-2 Lab : Numerical Techniques Core Course V

Core Course II : Electronic Circuits

SEMESTER WISE TEACHING PLAN

SRI VENKATESWARA COLLEGE

Academic Session 2019-2020 (Odd Semester)

Name of the Faculty : Mr. Hari Singh
Department : Electronics

Semester: Theory : B.Sc(H) Electronics, Semester I
B.Sc(H) Electronics, Semester III

Practical : B.Sc(H) Electronics, Semester I
B.Sc(H) Electronics, Semester III

Month		Topics	Course	Paper Code/ Name
JULY	**Theory**	Basic Circuit Concepts: Voltage and Current Sources, Resistors: Fixed and Variable resistors, Construction and Characteristics, Color coding of Resistors, Resistors in Series and Parallel. Basic Circuit Concepts: Inductors: Fixed and Variable inductors, Self and mutual inductance, Faraday's law and Lenz's law of electromagnetic induction, Energy stored in an inductor, Inductance in series and parallel, Testing of resistance and inductance using Multimeter.	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis
		PCB Fundamentals: PCB Advantages, components of PCB	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards
	Practical	Familiarization with a) Resistance in series, parallel and series – Parallel. b) Capacitors & Inductors in series & Parallel. c) Multimeter – Checking of components. d) Voltage sources in series, parallel and series – Parallel e) Voltage and Current dividers	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
		Introduction to PCB designing and various CAD software.	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards Lab
		Introductory Lab	B.Sc.(Hons) Electronics, Semester V	DSE-II/ Numerical Techniques Lab

AUGUST	**Theory**	Capacitors: Principles of capacitance, Parallel plate capacitor, Permittivity, Definition of Dielectric Constant, Dielectric strength, Energy stored in a capacitor, Air, Paper, Mica, Teflon, Ceramic, Plastic and Electrolytic capacitor, Construction and application, capacitors in series and parallel, factors governing the value of capacitors, testing of capacitors using multimeter. Dielectric Constant, Dielectric strength, Energy stored in a capacitor, Air, Paper, Mica, Teflon, Ceramic, Plastic and Electrolytic capacitor, Construction and application, capacitors in series and parallel, factors governing the value of capacitors, testing of capacitors using multimeter. Circuit Analysis: Kirchhoff's Current Law (KCL), Kirchhoff's Voltage Law (KVL), Node Analysis	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis
		Electronic components, Microprocessors and Microcontrollers, IC's, Surface Mount Devices (SMD). Classification of PCB - single, double, multilayer and flexible boards, Manufacturing of PCB, PCB standards. Schematic & Layout Design: Schematic diagram	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards
	Practical	Verification of Kirchoff's Law. Verification of Norton's theorem. Verification of Thevenin's Theorem.	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
		Installation and introduction to EAGLE. Designing of the PCB layout of Blinky Box using IC 555 Timer. Designing of the PCB layout of Low Pass Filter using IC 741. Designing of the PCB layout of High Pass Filter using IC 741.	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards Lab
		Programs to implement Bisection Method, Secant Method and Regula Falsi Method.	B.Sc.(Hons) Electronics, Semester V	DSE-II/ Numerical Techniques Lab
SEPTEMBER	**Theory**	Mesh Analysis, Star-Delta Conversion Network Theorems: Principal of Duality, Superposition Theorem, Thevenin's Theorem, Norton's Theorem, Reciprocity Theorem, Millman's Theorem, Maximum Power Transfer Theorem. AC circuit analysis using Network theorems	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis
		General Mechanical and Electrical design considerations, Placing and Mounting of components, Conductor spacing, routing guidelines, heat sinks and package density, Net list, creating components for library, Tracks, Pads, Vias, power plane, grounding. Technology OF PCB: Design automation,	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards

		Design Rule Checking		
	Practical	Verification of Superposition Theorem. Verification of the Maximum Power Transfer Theorem. Measurement of Amplitude, Frequency & Phase difference using CRO.	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
		Designing of the PCB layout of Band Pass Filter using IC 741 Designing of the PCB layout of Differentiator. Designing of the PCB layout of Integrator.	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards Lab
		Programs to implement Newton Raphson Method, Trapezoidal Rule, Simpson's Rule and Runge Kutta Method.	B.Sc.(Hons) Electronics, Semester V	DSE-II/ Numerical Techniques Lab
	Assignment	As per the syllabus covered		
OCTOBER	**Theory**	Two Port Networks: Impedance (Z) Parameters, Admittance (Y) Parameters, Transmission (ABCD) Parameters. AC Circuit Analysis: Sinusoidal Voltage and Current, Definition of Instantaneous, Peak, Peak to Peak, Root Mean Square and Average Values. Voltage-Current relationship in Resistor, Inductor and Capacitor, Phasor, Complex Impedance, Power in AC Circuits: Instantaneous Power, Average Power, Reactive Power, Power Factor. Sinusoidal Circuit Analysis for RL, RC and RLC Circuits. Resonance in Series and Parallel RLC Circuits, Frequency Response of Series and Parallel RLC Circuits, Quality (Q) Factor and Bandwidth. Passive Filters: Low Pass, High Pass, Band Pass and Band Stop.	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis
		Exporting Drill and Gerber Files; Drills; Footprints and Libraries Adding and Editing Pins, copper clad laminates materials of copper clad laminates, properties of laminates (electrical & physical), types of laminates, soldering techniques. Film master preparation, Image transfer, photo printing, Screen Printing, Plating techniques etching techniques, Mechanical Machining operations, Lead cutting and Soldering Techniques, Testing and quality controls	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards

	Practical	RC Circuits: Time Constant, Differentiator, Integrator. Designing of a Low Pass RC Filter and study of its Frequency Response. Designing of a High Pass RC Filter and study of its Frequency Response.	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
		Designing of the PCB layout of Full Wave Bridge Rectifier. Designing of the PCB layout of Half and Full Adder. Designing of the PCB layout of Half and Full Subtractor.	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards Lab
		Programs to implement Euler-Cauchy Method and Gauss-Jordon Method.	B.Sc.(Hons) Electronics, Semester V	DSE-II/ Numerical Techniques Lab
	Tutorials	NA	NA	NA
	Mid Term Test	As per the syllabus covered		
NOVEMBER	**Theory**	DC Transient Analysis: RC Circuit- Charging and discharging with initial charge, RL Circuit with Initial Current, Time Constant, RL and RC Circuits With Sources, DC Response of Series RLC Circuits.	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis
		PCB Technology: Trends, Environmental concerns in PCB industry	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards
	Practical	Study of the Frequency Response of a Series LCR Circuit and determination of its (a) Resonant Frequency (b) Impedance at Resonance (c) Quality Factor Q (d) Band Width.	B.Sc.(Hons) Electronics, Semester I	Core-Course-I/ Basic Circuit Theory and Network Analysis Lab
		Designing of the PCB layout of 4×1 Multiplexer.	B.Sc.(Hons) Electronics, Semester III	SEC-I/ Design and Fabrication of Printed Circuit Boards Lab
		Program to implement Gauss-Seidel Iteration.	B.Sc.(Hons) Electronics, Semester V	DSE-II/ Numerical Techniques Lab

SEMESTER WISE TEACHING PLAN SRI VENKATESWARA COLLEGE

Name of the Faculty: Ms. Shubhra Gupta

Department Electronics

Semester : I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	**SEM V** : Unit 1: Numerical Methods: Floating point, Round-off error, Error propagation, Stability, Programming errors.	Bsc (Hons) Electronics	**DSE-2** : Numerical Techniques
	Practicals	**SEM V** : Introductory Lab **SEM V :** Program for addition and subtraction using 8085 microprocessors **SEM V:** Understanding and Plotting Vectors	Bsc (Hons) Electronics	**DSE-2 Lab** : Numerical Techniques **CC-XI Lab** : Microprocessor and Microcontroller **CC-XII Lab :** Electromagnetics
	Tutorials			
AUGUST	**Theory:**	**SEM V:** Unit 1 contd. Solution of Transcendental and Polynomial Equations f(x)=0: Bisection method, Secant and Regula Falsi Methods, Newton Raphson method, Rate of convergence, General Iteration Methods, Newton‘s Method for Systems, Method for Complex Roots , Roots of Polynomial Equations. Unit 2 : Interpolation and Polynomial Approximations: Taylor Series and Calculation of Functions, Langrange Interpolation	Bsc (Hons) Electronics	**DSE-2** : Numerical Techniques

	Practicals:	**SEM V :** Program to implement Bisection Method , Secant Method and Regula falsi method. **SEM V :** Program for multibyte addition and subtraction, Program for block movement of data, Program for ascending and descending order **SEM V :** 1**.** Transformation of vectors into various coordinate systems. 2. 2D and 3D Graphical plotting with change of view and rotation.	Bsc (Hons) Electronics	**DSE-2 Lab** : Numerical Techniques **CC-XI Lab** : Microprocessor and Microcontroller **CC-XII Lab :** Electromagnetics
	Tutorials:			
SEPTEMBER	**Theory:**	**SEM V :** Unit 2 contd. Newton Divided Difference Interpolation (forward and backward difference formulae), Truncation errors. Curve Fitting: Least square fitting, Curve fitting, Interpolation by Spline functions. Unit 3 : Numerical Integration: Trapezoidal Rule, Error bounds and estimate for the Trapezoidal rule, Simpson‘s Rule, Error of Simpson‘s rule. Numerical Differentiation	Bsc (Hons) Electronics	**DSE-2** : Numerical Techniques
	Practicals:	**SEM V :** Program to implement Newton Raphson Method , Trapezoidal rule , Simpson‘s rule and Runge Kutta Method. **SEM V :** Program for GCD, Program for truth table of logic gates, Fibonacci series, Program to find minimum and maximum among N numbers, Division of 16-bit number **SEM V** 1. Representation of the Gradient of a scalar field, Divergence and Curl of Vector Fields. 2. Plots of Electric field and Electric Potential due to charge distributions. 3. Plots of Magnetic Flux Density due to current carrying wire.	Bsc (Hons) Electronics	**DSE-2 Lab** : Numerical Techniques **CC-XI Lab** : Microprocessor and Microcontroller **CC-XII Lab :** Electromagnetics

	Tutorials:			
	<u>Assignment :</u>	Based on Unit 1 and Unit 2		
OCTOBER	**Theory:**	**SEM V :**Unit 3 contd. Finite difference method and applications to electrostatic boundary value problems. Numerical methods for first order differential equations: Euler-Cauchy Method, Heun‘s Method, Classical Runge Kutta method of fourth order. Methods for system and higher order equations. Unit 4: Numerical Methods in Linear Algebra: Linear systems Ax=B, Gauss Elimination, Partial Pivoting, LU factorization, Doolittle‘s	Bsc (Hons) Electronics	**DSE-2** : Numerical Techniques
	Practicals:	**SEM V :** Program to implement Euler-Cauchy Method and Gauss-Jordon Method **SEM V :** Interfacing of PIC microcontroller with LEDs, Stepper motor, Generation of different waveforms, A/D converter **SEM V** 1. Programs and Contour Plots to illustrate Method of Images 2. Solutions of Poisson and Laplace Equations –contour plots of charge and potential distributions	Bsc (Hons) Electronics	**DSE-2 Lab** : Numerical Techniques **CC-XI Lab** : Microprocessor and Microcontroller **CC-XII Lab :** Electromagnetics
	Tutorials:			
	<u>Test</u>	Based on Unit 1 , Unit 2 and part of Unit 3.		
NOVEMBER	**Theory:**	**SEM V :** Unit 4 contd**.** Crout‘s and Cholesky‘s method. Matrix Inversion, Gauss-Jordon, Iterative Methods: Gauss-Seidel Iteration, Jacobian Iteration. Matrix Eigenvalue: Power Method	Bsc (Hons) Electronics	**DSE-2** : Numerical Techniques

	Practicals:	**SEM V :** Program to implement Gauss-Seidel Iteration **SEM V :** Serial communication between microcontroller and PC **SEM V:** Introduction to Computational Electromagnetics: Simple Boundary Value Problems by Finite Difference/Finite Element Methods	Bsc (Hons) Electronics	**DSE-2 Lab** : Numerical Techniques **CC-XI Lab** : Microprocessor and Microcontroller **CC-XII Lab :** Electromagnetics
	Tutorials:			

SEMESTER WISE TEACHING PLAN

SRI VENKATESWARA COLLEGE

Jul-Nov 2019

Name of the Faculty: Dr. Rakhi Narang

Department: Electronics **Semester : I/III/V**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	**Sem V:** Discrete sequences Sem **I**: Concept of Data Science, Traits of Big data	B. Sc. Electronics B. Sc. Electronics	DSE- Digital Signal Processing GE I: Data Sciences
	Practicals	**Sem V:** Generation of unit sample sequence, unit step, ramp function, discrete time sequence, real sinusoidal sequence. **Sem I:** : Starting with MATLAB, arithmetic operations with scalars, order of precedence, display formats, elementary built in functions, defining scalar variables, example questions	B. Sc. Electronics B. Sc Electronics	DSE- Digital Signal Processing Lab CC – II/ Mathematics Foundation for Electronics Lab
	Tutorials			
AUGUST	**Theory:**	**Sem V:** linear coefficient difference equation, Representation of DTS, LSI Systems. Stability and causality, frequency domain representations and Fourier transform of DT sequences, Z transform and its properties, Inverse Z transform **Sem I:** Linear Algebra: Vectors, Matrices; Statistics: Describing a Single Set of Data, Correlation, Simpson‘s Paradox, Correlation and Causation; Probability: Dependence and Independence, Conditional Probability, Bayes‘s Theorem, Random Variables, Continuous Distributions	B. Sc. Electronics B. Sc. Electronics	DSE- Digital Signal Processing GE I: Data Sciences
	Practicals:	**Sem V:** Generate and plot sequences over an interval. Convolution, deconvolution Linear Constant Coefficient Difference equations Z-transform: Given x[n], write program to find X[z]. **Sem I:** Creating arrays: Creating a 1D array(vector), 2D array(matrix), array addressing, built in functions for handling arrays, mathematical operations with arrays, script files. Programs on arrays and matrices Solution of First Order Differential Equations. Solution of Second Order homogeneous Differential Equations.	BSc Electronics BSc Electronics	DSE- Digital Signal Processing Lab CC – II/ Mathematics Foundation for Electronics Lab

	Tutorials:			
SEPTEMBER	**Theory:**	**Sem V: System Function**: signal flow graph, its use in representation and analysis of Discrete Time Systems. Techniques of representations. Matrix generation and solution for DTS evaluations. DFT assumptions and Inverse DFT. Matrix relations, relationship with FT and its inverse, circular convolution, DFT theorems, DCT. Computation of DFT. **Sem I**: The Normal Distribution, The Central Limit Theorem ; Hypothesis and Inference: Statistical Hypothesis Testing, Confidence Intervals, Phacking, Bayesian Inference, Overview of Machine learning concepts – Over fitting and train/test splits, Types of Machine learning – Supervised, Unsupervised, Reinforced learning	BSc Electronics BSc Electronics	DSE- Digital Signal Processing GE I: Data Sciences
	Practicals:	**Sem V:** Fourier Transform, Discrete Fourier Transform and Fast Fourier Transform **Sem I:** Functions and function files, programming in matlab: conditional statements(if-end, if-else-end, if-elseif-else-end), switch case, loops(for-end and while-end), break and continue commands. Programs on Loops, creating user defined Function files. Solution of Second Order non-homogeneous Differential Equations Convergence of a given series. Divergence of a given series.	BSc Electronics BSc Electronics	DSE- Digital Signal Processing Lab CC – II/ Mathematics Foundation for Electronics Lab
	Tutorials:			
	Assignment	**Sem V:** Assignment based on Unit-I and II along with an application implementation on MATLAB **Sem I:** Assignment based on Unit II		
OCTOBER	**Theory:**	**Sem V:** FFT Algorithms and processing gain, Discrimination, interpolation and extrapolation. Gibbs phenomena. FFT of real functions interleaving and resolution improvement. Word length effects. **Digital Filters**: Analog filter review. System function for IIR and FIR filters, network representation. Canonical and decomposition networks. **Sem I:** Introduction to Bayes Theorem, Linear Regression- model assumptions, regularization (lasso, ridge, elastic net), Classification and Regression algorithms- Naïve Bayes, K-Nearest Neighbors, logistic regression, decision trees, and random forest	BSc Electronics B.Sc. Electronics	DSE- Digital Signal Processing GE I: Data Sciences

	Practicals:	**Sem V:** Design of a Butterworth analog filter for low pass and high pass. **Sem I:** Solution of linear system of equations using Gauss – Seidel method. Solution of linear system of equations using L-U decomposition method.	B.Sc. Electronics B.Sc. Electronics	DSE- Digital Signal Processing Lab CC – II/ Mathematics Foundation for Electronics Lab
	Mid term Test	Test based on Unit I and II for DSE Test based on Unit I and II for GE-I		
NOVEMBER	**Theory:**	**Sem V:** IIR filter realization methods and their limitations. FIR filter realization techniques. Discrete correlation and convolution; Properties and limitations **Sem I:** Support vector machines (SVM), Overview of Deep Learning	B. Sc. Electronics B.Sc. Electronics	DSE- Digital Signal Processing Lab GE I: Data Sciences
	Practicals:	**Sem V:** Design of digital filters **Sem I :** Solution of linear system of equations using Gauss Elimination method	B.Sc. Electronics B.Sc. Electronics	DSE- Digital Signal Processing Lab CC – II/ Mathematics Foundation for Electronics Lab
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Academic Session (July-Nov'19), Odd Semester

Name of the Faculty : Dr. Neha Verma

Department : Electronics

Semester: Theory : B.Sc.(H) Electronics, Sem I
B.Sc.(H) Electronics, Sem III

Practical : B.Sc.(H) Electronics, Sem I
B.Sc.(H) Electronics, Sem III
B.Sc.(H) Electronics, Sem V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Unit-1:First Order Ordinary Differentia Equations: Basic Concepts and Definitions, Variables Separable, Homogenous Equations-reduction to Separable form	B.Sc.(Hons) Electronics, Sem I	Core-Course-II/ Mathematics Foundation for Electronics
		Diode Circuits: Ideal Diode, piecewise linear equivalent circuit.	B.Sc.(Hons) Electronics, Sem III	Core-Course-V/ Electronics Circuits
	Practicals	Starting with MATLAB, arithmetic operations with scalars, order of precedence, display formats, elementary built in functions, defining scalar variables, example questions.	B.Sc.(Hons) Electronics, Sem I	Core-Course-II/ Mathematics Foundation for Electronics Lab
		Study of the half wave rectifier with C-filter	B.Sc.(Hons) Electronics, Sem III	Core-Course-V/ Electronics Circuits Lab
AUGUST	**Theory**	Unit-1: Non Homogenous Equations reducible to Homogenous form, Exact DE. Reduction of Non-exact DE: using Integrating factors, Linear Ordinary DE, Linear DE of Second Order: Linear Independence and Dependence, Linear DE of second order with variable coefficients, second order with constant coefficients: Homogenous and Non-homogenous Equations, Series Solution of DE and Special functions: Classification of Singularities, Power series solution, Frobenius Method, Bessel's equation and Bessel's functions of first and second kind, Error functions and Gamma function.	B.Sc.(Hons) Electronics, Sem I	Core-Course-II/ Mathematics Foundation for Electronics
		Diode Circuits: dc load line analysis, Quiescent point, Clipping and Clamping Circuits, Rectifiers Working and Ripple factor, efficiency Analysis, filter, DC Power supply, Zener voltage Regulator Review of Depletion and Enhancement	B.Sc.(Hons) Electronics,	Core-Course-V/ Electronics

		MOSFET, Biasing of MOSFETs, Small Signal Parameters, Common Source amplifier circuit analysis, CMOS circuits.	Sem III	Circuits
	Practicals	Creating arrays: Creating a 1D array(vector), 2D array(matrix), array addressing, built in functions for handling arrays, mathematical operations with arrays, script files. Programs on arrays and matrices Solution of First Order Differential Equations Solution of Second Order homogeneous Differential Equations. Study of Full wave rectifier with C-filter Study of clipping circuits (series and parallel) Study of clamping circuits.	B.Sc.(Hons) Electronics, Sem I B.Sc.(Hons) Electronics, Sem III	Core-Course-II/ Mathematics Foundation for Electronics Lab Core-Course-V/ Electronics Circuits Lab
SEPTEMBER	**Theory**	Unit-2: Matrices: Introduction to Matrices, Types of Matrices, Rank of a Matrix, System of Algebraic Equations, Gaussian Elimination Method, Gauss-Seidel Method, LU decomposition, Solution of Linear System by LU decomposition. Eigen values and Eigen Vectors, Cayley-Hamiltonian Theorm, Diagonalization, Powers of a Matrix, Real and Complex Matrices, Symmetric, skew symmetric, Orthogonal Quadratic form, Hermitian, Skew Hermitian, Unitary matrices. Unit-3: Sequence and Series: Sequences, Limit of Limit of a sequence, Convergence, Divergence and Oscillation of a sequence, Infinite series, Necessary condition for Convergence.	B.Sc.(Hons) Electronics, Sem I	Core-Course-II/ Mathematics Foundation for Electronics
	Practicals	Functions and function files, programming in matlab: conditional statements(if-end, if-else-end, if-elseif-else-end), switch case, loops(for-end and while-end), break and continue commands. Programs on Loops, createing user defined Function files. Solution of Second Order non-homogeneous Differential Equations Convergence of a given series. Divergence of a given series. Study of Fixed Bias, Voltage divider and Collector-to-Base bias Feedback configuration for transistors, CE Amplifier Design its and frequency response Fourier Transform, Discrete Fourier Transform and Fast Fourier Transform	B.Sc.(Hons) Electronics, Sem I B.Sc.(Hons) Electronics, Sem III B.Sc.(Hons)	Core-Course-II/ Mathematics Foundation for Electronics Lab Core-Course-V/ Electronics Circuits Lab DSE/ Digital

			Electronics, Sem V	Signal Processing Lab
	Assignment	Assignment: Questions based on topics covered.	B.Sc.(Hons) Electronics, Sem I	Core-Course-II/ Mathematics Foundation for Electronics
OCTOBER	**Theory**	Cauchy‘s Integral Test, D‘Alembert‘s Ratio Test, Cauchy‘s nth Root Test, Alternating Series, Leibnitz‘s Theorem, Absolute Convergence and Conditional Convergence, Power Series. Unit4: Complex Variables and Functions: Complex Variable, Complex Function, Continuity, Differentiability, Analyticity.	B.Sc.(Hons) Electronics, Sem I	Core-Course-II/ Mathematics Foundation for Electronics
	Practicals	Solution of linear system of equations using Gauss – Seidel method. Solution of linear system of equations using L-U decomposition method. Power Amplifiers: Class A, B and C, Study of the Colpitt‘s Oscillator Study of the Hartley‘s Oscillator Design of a Butterworth analog filter for low pass and high pass.	B.Sc.(Hons) Electronics, Sem III B.Sc.(Hons) Electronics, Sem III B.Sc.(Hons) Electronics, Sem V	SEC/ Design and Fabrication of Printed Circuit Boards Core-Course-V/ Electronics Circuits Lab DSE/ Digital Signal Processing Lab
	Tutorials	NA	NA	NA
	Mid Term Test	Test: As per the covered topics.		
NOVEMBER	**Theory**	Unit4: Cauchy-Riemann (C- R) Equations, Harmonic and Conjugate Harmonic Functions, Exponential Function, Trigonometric Functions, Hyperbolic Functions. Line Integral in Complex Plane, Cauchy‘s Integral Theorem, Cauchy‘s Integral Formula, Derivative of Analytic Functions. Sequences, Series and Power Series, Taylor‘s Series, Laurent Series, Zeroes and Poles. Residue integration method, Residue integration of real Integrals.	B.Sc.(Hons) Electronics, Sem I	Core-Course-II/ Mathematics Foundation for Electronics
	Practicals	Solution of linear system of equations using Gauss Elimination method. Study of the Phase Shift Oscillator. Design of digital filters	B.Sc.(Hons) Electronics, Sem I B.Sc.(Hons) Electronics, Sem III	Core-Course-II/ Mathematics Foundation for Electronics Lab Core-Course-V/ Electronics Circuits Lab

			B.Sc.(Hons) Electronics, Sem V	DSE/ Digital Signal Processing Lab

SEMERSTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Semester I/III/V
(July-Nov 2019)

Name of the Faculty: Dr Meenakshi Kuhar **Department: Biochemistry**

Month		Topics	Course	Paper Code/Name
		Unit 1: Biosynthesis of RNA in prokaryotes	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
July	Theory	Unit 6: Introduction to Bioenergetics: Laws of thermodynamics, ATP cycle, free energy, coupled reactions	B Sc (H) Biochemistry II Year Semester III	C-6 Membrane Biology and Bioenergetics
		Unit 2: Proteins: Amino acid building blocks, structure and classification	B. Sc (H) Biological Sciences, II Year Semester III	C-5 Proteins and Enzymes
	Practical	Exercise1: Estimation of RNA by orcinol method	B. Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Exercise1: Determination of pKa value for acetic acid	B. Sc (H) Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes

SEMERSTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Semester I/III/V

Name of the Faculty: Dr Meenakshi Kuhar **Department: Biochemistry**

Month		Topics	Course	Paper Code/Name
August		Unit 1: Biosynthesis of RNA in prokaryotes	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
	Theory	Unit 6: Introduction to Bioenergetics: Redox reactions, standard redox potentials Unit 7: Oxidative Phosphorylation: Electron carriers, mitochondrial electron transport chain. Inhibitors and uncouplers	B Sc (H) Biochemistry II Year Semester III	C-6 Membrane Biology and Bioenergetics
		Unit 2: Proteins: Amino acid building blocks, physical properties	B. Sc (H)Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes
	Practical	Exercise 2: Extraction of total nucleic acid from plant tissue Exercise 3: Isolation of total RNA from bacteria/yeast	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Exercise 2: Preparation of buffers Exercise 3: Protein estimation by Biuret method	B. Sc (H)Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes

SEMERSTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Semester I/III/V

Name of the Faculty: Dr Meenakshi Kuhar **Department: Biochemistry**

Month		Topics	Course	Paper Code/Name
September	Theory	Unit 2: Biosynthesis of RNA in eukaryotes	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Unit 7: Oxidative Phosphorylation: Chemi-osmotic theory, proton motive force, Structure and mechanism of ATP synthase, ROS production, thermogenesis	B Sc (H) Biochemistry II Year Semester III	C-6 Membrane Biology and Bioenergetics
		Unit 3: Enzymes: Classification and nomenclature, ribozymes, coenzymes, cofactors, kinetics of enzyme catalyzed reactions	B. Sc (H) Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes
	Practical	Exercise 4A: Growth curve of E coli Exercise 4B: Diauxic growth curve effect	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Exercise 4: Estimation of proteins by Lowry's method Exercise 5: Separation of sugars by TLC	B. Sc (H) Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes

SEMERSTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Semester I/III/V

Name of the Faculty: Dr Meenakshi Kuhar **Department: Biochemistry**

Month		Topics	Course	Paper Code/Name
October	Theory	Unit 3: RNA splicing	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Unit 8: Photophosphorylation: Photosynthetic pigments, light harvesting system in plants and microbes, bacterial photophosphorylation	B Sc (H) Biochemistry II Year Semester III	C-6 Membrane Biology and Bioenergetics
		Unit 3: Enzyme inhibition, catalytic mechanisms, regulation of enzyme activity	B.Sc (H)Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes
	Practical	Exercise5: Effect of inhibitors on protein synthesis	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Exercise 6: Assay of enzyme acid phosphatase Exercise7: Effect of pH on enzyme activity	B.Sc (H)Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes

SEMERSTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Semester I/III/V

Name of the Faculty: Dr Meenakshi Kuhar **Department: Biochemistry**

Month		Topics	Course	Paper Code/Name
November	Theory	Unit 8: Regulation of gene expression in eukaryotes	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Unit8:Photophosphorylation:Photosynthesis in plants, photosystem I and II, Z-scheme, cyclic photophosphorylation	B Sc (H) Biochemistry II Year Semester III	C-6 Membrane Biology and Bioenergetics
		Unit 4: Isolation and purification of enzymes: Techniques of enzyme purification, enzyme immobilization methods	B.Sc (H)Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes
	Practical	Mock practicals	B Sc (H) Biochemistry III Year Semester V	C 12 Gene Expression and Regulation
		Exercise 8: Progress curve of an enzyme	B. Sc (H)Biological Sciences, II Year Semester III	BS C-5 Proteins and Enzymes

SEMESTER WISE TEACHING PLAN

SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr.N.Latha **Department: BIOCHEMISTRY**

Semester : I/III/V (ODD SEMESTER)

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Biomolecules: Diversity and Distribution	B.Sc. BIOLOGICAL SCIENCES (Hons.) II Year, Semester III	BSC5 : PROTEINS AND ENZYMES
		Introduction to Fatty acid Metabolism	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
		Biomolecules-Cellular and Chemical Foundations of Life	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C1: Molecules of Life
	Practicals	Protein Purification Basics & Applications	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	SEC : PROTEIN PURIFICATION
		Introduction to Metabolism of carbohydrates & Lipids	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	METABOLISM OF CARBOHYDRATES & LIPIDS
AUGUST	**Theory**	Lipids: Role of lipids in cellular architecture and functions. Definition and classification of lipids. Structure and function of fatty acids, triacylglycerols, phospholipids and sterols. Nucleic acids: Role of nucleic acids in living system. Composition of nucleic acids-the purine and pyrimidine bases	B.Sc. BIOLOGICAL SCIENCES (Hons.) II Year, Semester III	BSC5 : PROTEINS AND ENZYMES
		Digestion, mobilisation and transport of cholesterol and triacyl glycerols, fatty acid transport to mitochondria, β oxidation of saturated, unsaturated, odd and even numbered and branched chain fatty acids, regulation of fatty acid oxidation, peroxisomal oxidation, ω oxidation, ketone bodies metabolism, ketoacidosis	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
		Lipids : Building blocks of lipids - fatty acids, glycerol, ceramide. Storage lipids - triacyl glycerol,Structural lipids in membranes – glycerophospholipids, galactolipids and sulpholipids,	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C1: Molecules of Life
	Practicals:	Assay acid phosphatase Partial purification of enzyme by salting out Dialysis	B.Sc. BIOCHEMISTRY (Hons.) II Year, Semester III	SEC: Protein Purification

		Estimation of Cholesterol by Zaks method Estimation of Inorganic phosphorous Estimation of Choline	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
SEPTEMBER	**Theory**	Classification of proteins on the basis of composition, conformation and function-functional diversity of proteins. The amino acid building blocks-classification, structure and physical properties of the standard amino acids.	B.Sc. BIOLOGICAL SCIENCES (Hons.) II Year, Semester III	BSC5 : PROTEINS AND ENZYMES
		Fatty acid Biosynthesis, Fatty acid synthase complex. Synthesis of saturated, unsaturated, odd and even chain fattyacids and regulation, Synthesis of membrane phospholipids in prokaryotes and eukaryotes, respiratory distress 16syndrome, biosynthesis of triacylglycerol, biosynthesis of	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
		Waxes, Terpenes, Steroids, Eicosanoids, Lipids as signals, cofactors and pigments	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C1: Molecules of Life
	Practicals	Ion Exchange Chromatography Gel Filtration	B.Sc. BIOCHEMISTRY (Hons.) II Year, Semester III	SEC: Protein Purification
		• Assay of salivary amylase. • Isolation of cholesterol from egg yolk and its estimation	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
	<u>Test</u>	Lipids: Role of lipids in cellular architecture and functions. Definition and classification of lipids. Structure and function of fatty acids, triacylglycerols, phospholipids and sterols. Nucleic acids: Role of nucleic acids in living system. Composition of nucleic acids-the purine and pyrimidine bases. Classification of proteins on the basis of composition, conformation and function-functional diversity of proteins. Classification of proteins on the basis of composition, conformation and function-functional diversity of proteins. The amino acid building blocks-classification, structure and	B.Sc. BIOLOGICAL SCIENCES (Hons.) II Year, Semester III	BSC5 : PROTEINS AND ENZYMES

		physical properties of the standard amino acids.		
		Fatty acid Metabolism- β oxidation of saturated, unsaturated, odd and even numbered and branched chain fatty acids, regulation of fatty acid oxidation, peroxisomal oxidation, ω oxidation, ketone bodies metabolism,	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
		Lipids –Structure, fatty acids, glycerol, ceramide. Storage lipids - triacyl glycerol,Structural lipids in membranes – glycerophospholipids, galactolipids and sulpholipids, Steroids, Waxes	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C1: Molecules of Life
OCTOBER	**Theory**	Proteinaceous and non-proteinaceous, essential and non-essential amino acids. Primary, secondary, tertiary and qua ternary structure of proteins. Structure of myoglobin and hemoglobin. Molecular physiology of myoglobin and hemoglobin, Bohr effect, Hill's coefficient. Concerted and sequential models for allosteric proteins	B.Sc. BIOLOGICAL SCIENCES (Hons.) II Year, Semester III	BSC5 : PROTEINS AND ENZYMES
		Synthesis of prostagladins, leukotrienes and thromboxanes. Synthesis of cholesterol, regulation of cholesterol synthesis. Synthesis of steroids and isoprenoids	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
		Amino acids :Structure and classification, physical, chemical and optical properties of amino acids	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C1: Molecules of Life
	Practicals:	Electrophoresis	B.Sc. BIOCHEMISTRY (Hons.) II Year, Semester III	SEC: Protein Purification
		• Isolation of lecithin, identification by TLC, and its estimation.	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
	Assignment	Biomolecules: Diversity and Distribution, Lipids: Role of lipids in cellular architecture and functions. Definition and classification of lipids. Structure and function of fatty acids, triacylglycerols, phospholipids and sterols. Nucleic acids: Role of nucleic acids in living system. Composition of nucleic acids-the purine and pyrimidine bases	B.Sc. BIOLOGICAL SCIENCES (Hons.) II Year, Semester III	BSC5 : PROTEINS AND ENZYMES

		Fatty acid Biosynthesis, Fatty acid synthase complex. Synthesis of saturated, unsaturated, odd and even chain fattyacids and regulation, Synthesis of membrane phospholipids in prokaryotes and eukaryotes, respiratory distress 16syndrome, biosynthesis of triacylglycerol, biosynthesis of plasmalogens, sphingolipids and	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
		Amino acids :Structure and classification, physical, chemical and optical properties of amino acids, Unusual Amino acids, Titration Curves	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C1: Molecules of Life
NOVEMBER	**Theory:**	Role of Metal ions in Biology: Metalloprotein, Metalloenzymes, metal base drug interaction and inhibition; metallo porphyrins, Redox. Carriers in mitochondrial electron transport chain. Carbohydrates: Biological roles of carbohydrates. Structure of monosacharides- Hexoses and pentoses. Disacharides-Sucrose, lactose, maltose. Storage and structural polysacharidesGlycogen, starch and cellulose	B.Sc. BIOLOGICAL SCIENCES (Hons.) II Year, Semester III	BSC5 : PROTEINS AND ENZYMES
		Integration of metabolism, Class presentations.	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	CBCS C5: Metabolism OF Carbohydrates & Lipids
		Vitamins-Water Soluble & Fat soluble Vitamins, Structure and active forms of water soluble and fat soluble vitamins, deficiency diseases and symptoms, hypervitaminosis	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C1: Molecules of Life
	Practicals:	Revision of practicals, Mock Practical Examination	B.Sc. BIOCHEMISTRY (Hons.) II Year, Semester III	SEC : PROTEIN PURIFICATION
		Revision of practicals, Mock Practical Examination	B.Sc. BIOCHEMISTRY (Hons.) II Year, Semester III	METABOLISM OF CARBOHYDRATES & LIPIDS

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Anju Kaicker

Department: Biochemistry **Semester : I/III/IV**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Receptor study, Scatachard Plot, Binding ,affinity studies, GPCR,Structure and signaling mechanism	B Sc. H, Biochemistry	BCH C7
	Practicals			
	Tutorials			
AUGUST	**Theory:**	Phosphoinositide pathway, phosphatases, diesterases,PKA,PKB, PKC, PKG, NO, MAP KInase, JAK STATpathways	B Sc. H, Biochemistry	BCH C7
		Gel Filtration, principle and applications, Vo& Ve & Vs	PGDMB	PGDMB 101
		Historical Background, Antigen &immunogen, Antibody structure and function ,Precipitation,	PGDMB	PGDMB103
	Practicals:	Separation of Hb and dichromate Separation of DB and BPB, Determination of Kd, Vo & Vs	PGDMB	PGDMBL 101
		DID, SRID, IEP,CIE, Counter electrophoresis	PGDMB 103	PGDMB 103

	Tutorials:			
SEPTEMBER	**Theory:**	Steroid and thyroid hormone receptors and signalling, , Anthrax, pertusis toxin and action Hypothalamic –Pitutiary axis ; pituitary hormones , growth factors Affinity chromatography, principle Elution methods, Ligand, Matrix activation ,TLC, GC ELISA, Fluorescent Assays, RIA Application of the tests	B Sc. H, Biochemistry PGDMB PGDMB	 BCH C7 PGDMB 101 PGDMB103

	Practicals:	Separation of serum proteins by ion exchange chromatography, Separation of BSA&lysozyme Agglutination Tests : Direct and Indirect	PGDMB PGDMB	PGDMB 101 PGDMBL 103
	Tutorials:			
	<u>Assignment :</u>			

OCTOBER	**Theory:**	Reproductive hormones, interplay of hormones during reproduction, parturition, lactation Plant tissue culture ,:Hoods,Callus induction Monoclonal Antibodies, production, Uses, Antigen processing	B Sc H Biochemistry PGDMB PGDMB	BCH C7 PGDMB 101 PGDMB 103
	Practicals:	IgG purification by affinity column, TLC separations Isolation of PBMC Isolation of macrophages from spleen	PGDMB PGDMB	PGDMB 101 PGDMDL 103
	Tutorials:			
	Test	Class tests for each paper		
NOVEMBER	**Theory:**	PI 3 Kinase, Insulin receptor family, Desensitization Animal tissue culture, primary Secondary culture, cell lines MHC and its significance Revision Assignments	B Sc H Biochemistry PGDMB PGDMB	BCH C7 PGDMB 101 PGDMB 103
	Practicals:	REVISION EXERCISES and FINAL PRACTICAL EXAM	PGDMB PGDMB	PGDMB 101 PGDMBL 103
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr.Nandita Narayanasamy Department: BIOCHEMISTRY

Semester : I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Introduction to Genetics and understanding complementation test.	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH C-11: Concepts In Genetics
		Introduction to Nutritional Biochemistry	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry
		Functions of hormones and their regulation. Chemical signaling - endocrine, paracrine, autocrine, intracrine and neuroendocrine mechanisms. Chemical classification of	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	BCH C7: Hormone biochemistry and function
	Practicals	Orientation for Practicals in Nutritional Biochemistry	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry
		Orientation for Practicals in Membrane Biology and BIoenergegits	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	BCH C-6 Membrane biology and Bioenergetics
AUGUST	**Theory**	Extentions to Mendalian Genetics; Incomplete dominance, Co dominance, Lethal alleles , Multiple alleles. Concept of monogenic and polygenic traits, phenocopy, Peneterance and Variable expressivity. Chromosomal theory of inheritance. Pedigree analysis	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH C-11: Concepts In Genetics
		Review functions of carbohydrates. Digestion, absorption ,utilization and storage, hormonal regulation of blood glucose. Dietary requirements and source of carbohydrates, Dietary fiber, role of fibre in lipid metabolism, colon function, blood glucose level and GI tract functions.	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry
		Thyroid gland. Biosynthesis of thyroid hormone and its regulation; its physiological and biochemical action. Pathophysiology - Goiter, Graves disease, cretinism, myxedema, Hashimato's disease.	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	BCH C 7: Hormone Biochemistry and Function.
	Practicals:	Anthropometric measurements. Anthropometric identifications for Kwashiorkor, Marasmus and Obesity. .	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry

		Effect of lipid composition on the permeability of a lipid monolayer. 2. Determination of CMC of detergents. 3. RBC ghost cell preparation and to study the effect of detergents on membranes.	B.Sc. BIOCHEMISTRY (Hons.) IIYear, Semester III	BCH C-6 Membrane biology and Bioenergetics
SEPTEMBER	**Theory**	Gene interactions: additive gene effect, recessive and dominant epistasis, duplicate dominant and recessive epistasis, suppressor and modifier gene. Sex determination: heteromorohic chromosomes , genetic sex determination , temp dependent sex determination. Sex determination in C.elegans, Drosophila and humans. Sex linked , sex influenced inheritance, Drosophila development, maternal effect genes, morphogens and zygotic gene activity in development. Dosage compensation, Genetic imprinting.	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	I BCH C-11: Concepts In Genetics
		Review of classification, sources, functions, digestion, absorption, utilization and storage. Essential Fatty Acids; Functions of EFA, RDA, – excess and deficiency of EFA. Lipotropic factors, role of saturated fat, cholesterol, lipoprotein and triglycerides. Importance of the following: a) Omega – fatty acids. Omega 3/ omega 6 ratio b) Phospholipids c) Cholesterol in the body d) Mono, Polyunsaturated and Saturated Fatty Acids.	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry
		PTH, Vitamin D and calcitonin. Mechanism of Ca2+ regulation and pathways involving bone, skin, liver, gut and kidneys. Pathophysiology - rickets, osteomalacia, osteoporosis. Regulation of release of insulin, glucagon, gastrin, secretin, CCK, GIP, adipolectin, leptin and ghrelin. Summary of hormone metabolite control of GI function. Physiological and biochemical action. Pathophysiology - diabetes type I and type II.	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	BCH C7 : Hormone Biochemistry and function.
	Practicals	Biochemical assessment. ROS assessment. Determination of oxidative stress: TBARS, antioxidant enzymes in hemolysateBiochemical assessment. Nutritional status, Vitamin E	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE-1 Nutritional biochemistry
		Separation of photosynthetic pigments by TLC. 5. Isolation of mitochondria from liver and assay of marker enzyme SDH. 6. Study photosynthetic O2 evolution in hydrilla plant. 7	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	BCH C 6: Membrane biology and Bioenergetics
	Test	Mendalian genetics , extensions to mendalian genetics , pedigree analysis	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH C-11: Concepts In Genetics

	Assignment	Pedigree analysis	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	GGHT 501: Genetics and Genomics I
		Case studies in Endocrinology	B.Sc. BIOCHEMISTRY (Hons.) II Year, Semester III	BCH C 7: hormone Biochemistry and function
OCTOBER	**Theory**	Dosage compensation, Genetic imprinting, Quantitative genetics,	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH C-11: Concepts In Genetics
		Calcium, Phosphorus and Iron - Distribution in the body digestion, Absorption, Utilization , Transport, Excretion, Balance, Deficiency, Toxicity, Sources, RDA	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry
		Adipose tissue hormones and regulation of food intake.	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	BCH C 7: Hormone Biochemistry and function.
	Practicals:	Clinical assessment of Nutritional status,Case studies. Maintaining a dietary record to assess nutritional status.	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry
		Isolation of chloroplast from spinach leaves, estimation of chlorophyll and photosynthetic activity. Assessment.	B.Sc (Hons) BIOCHEMISTRY ,II Year, Semester III	BCH C 6:Membrane biology and bioenergetics..
	Test	Test on Unit 2 and 3 of Nutritional Biochemistry. Test in Extension to Mendalian genetics, Pedigree and sex determination.	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry BCH C-11: Concepts In Genetics
		Test on Thyroid, Parathyroid and Pancreatic hormones. Assessment –Case studies.	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester III	BCH C7: Hormone Biochemistry and function.
NOVEMBER	**Theory:**	Extra nuclear inheritance, tests for organelle heredity and maternal effect, epigenetic mechanisms of transcriptional regulation & genomic imprinting. Inheritance of complex trait, analysis of quantitative traits, narrow and broad sense heritability, quantitative trait loci (QTL) and their identification. Hardy-Weinberg law, predicting allele and genotype frequencies and exceptions to Hardy-Weinberg principle. Molecular evolution - analysis of nucleotide and amino acid sequences, molecular phylogenies, homologous sequences, phenotypic evolution and speciation	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH C-11: Concepts In Genetics

		Iodine, Fluoride, Mg, Cu, Zn, Se, Manganese, Chromium, Molybdenum Distribution in the human body, Physiology, Function, deficiency, Toxicity and Sources Appetite changes with drug intakes and malnutrition. Food as medicine.	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE -1: Nutritional Biochemistry
		Anatomy of the adrenal gland. Adrenal medullary hormones. Glucocorticoids and mineralocorticoids. Aldosterone, renin angiotensin system, cortisol, epinephrine and norepinephrine. Fight or flight response, stress response. Pathophysiology – Addison's disease, Conn's syndrome, Cushing syndrome.	B.Sc. BIOCHEMISTRY Hons.) II Year, Semester IIII	BCH C7: Hormone Biochemistry and Function
	Practicals:	Revision exercises, value added experiments, Mock Practical Examination and final pratical examination	B.Sc. BIOCHEMISTRY (Hons.) III Year, Semester V	BCH DSE 1: Nutritional biochemistry
		Revision exercises, value added experiments Mock Practical Examination and final pratical examination	B.Sc (Hons) BIOCHEMISTRY,II Year, Semester III	BCH C 6: Membrane biology and bioenergetics

SEMESTER WISE TEACHING PLAN

SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Shalini Sen **Department: Biochemistry**

B.Sc.(H) Biological Sciences, Semester V; P.G. Diploma-Semester I

Month		Topics	Course	Paper Code/Name
July	**Theory**	**Unit 1** Epistasis, Pleiotropy	BSc.(H) Biological Sciences Semester V	BS C12 Fundamentals of Genetics
		Entrance and Admissions	P.G.Diploma in Molecular and Biochemical Technology Semester I	PGDMB 101 Biophysical Techniques 1
		Entrance and Admissions	P.G.Diploma in Molecular and Biochemical Technology Semester I	PGDMB 102 Recombinant DNA Technology I
	Practicals	NA	P.G.Diploma in Molecular and Biochemical Technology Semester I	PGDMB L104 Biophysical Techniques I
		NA	P.G.Diploma in Molecular and Biochemical Technology Semester I	PGDMB L105 Recombinant DNA Technology I
	Internal assessment	Class Discussions		

August	**Theory**	**Unit 3 Mutations** Chromosomal mutations, Deletion, Duplication, Inversion, Translocation, Aneuploidy and Polyploidy; Gene mutations: Induced v/s Spontaneous, Back v/s Suppressor mutations. Molecular basis of mutations in relation to UV light and chemical mutagens, Detection of mutations: ClB method, Attached X-method, DNA repair mechanisms	BSc.(H) Biological Sciences Semester V	BS C12 Fundamentals of Genetics
		Unit 1. Principles of Spectrophotometry: ultraviolet-visible absorption spectrophotometry, visible recording of spectra for proteins and nucleic acids and calculation of concentration of protein and nucleic acids from spectrum. Fluorescence spectroscopy.	P.G.Diploma in Molecular and Biochemical Technology Semester I	PGDMB 101 Biophysical Techniques 1
		Unit 1. Restriction enzymes: various types, their properties, nomenclature, creating new restriction sites by DNA manipulation. DNA methylation systems in E.coli (dam, dcm, M EcoKI). **Various DNA modifying enzymes used in cloning** (DNA polymerases :DNA Polymerase I, Klenow fragment, T4DNA Polymerase, T7 DNA Polymerase), RNA Polymerases(T3, T7, SP6), Reverse Transcriptase (AMV, MoMLV), Ligases (T4 DNA ligase, E.coli DNA ligase), Taq polymerase.	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB 102 RDT I
	Practicals :	**1.** Spectrophotometric analysis of nucleic acids. 2. Protein estimation at $\lambda_{280.}$ 3. Effect of solvent perturbation on absorption by a chromophore	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB L104 Biophysical Techniques I

		1. Preparation and sterilization of LB medium. 2. Obtaining isolated colonies of E.coli by streak plate and spread plate method. 3. To study the growth curve of *E.coli* DH5α	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB L105 Recombinant DNA Technology I
	Internal Assessment	Class Discussions		
September	**Theory**	**Unit 4 Extra chromosomal Inheritance No. of Hours: 6** Chloroplast mutation/Variegation in four 'o clock plant and *Chlamydomonas,* Mitochondrial mutations in *Neurospora* and yeast, Maternal effects, Infective heredity-Kappa particles in *Paramecium.*	BSc.(H) Biological Sciences Semester V	BS C12 Fundamentals of Genetics
		Theory of polyacrylamide gel electrophoresis: native and SDS PAGE, reducing and non reducing gels, detection of protein bands in gels- Coomassie blue staining, silver staining, fluorescence staining, molecular weight determination by SDS PAGE recovery of proteins from the gel, affinity staining, isoelectric focusing of proteins, Two dimensional gel electrophoresis, gradient gel electrophoresis, Differential gel electrophoresis(DIGE). **Theory of agarose gel electrophoresis**, Pulsed Field Gel Electrophoresis.	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB 101 Biophysical Techniques 1
		Unit 3. **Covalent linkage of DNA fragments to vector molecules:** linkers, adapters, conversion adaptors, homopolymer tailing (recovery of DNA insert after homopolymer tailing). **Generation of genomic and cDNA libraries:** (mRNA source,	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB 102 RDT I

		integrity, enrichment techniques, different methods of first strand and second strand of cDNA synthesis.		
	Practicals	1. Agarose gel electrophoresis: 2.Determination of molecular weight of unknown DNA sample	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB L104 Biophysical Techniques I
		1. Isolation of chromosomal DNA of *E.coli* 2. Isolation of plasmid DNA by the alkaline lysis method (mini-prep)	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB L105 Recombinant DNA Technology I
		Class Tests		
October	**Theory**	**Unit 7 Population and Evolutionary Genetics** Allele frequencies, Genotype frequencies, Hardy-Weinberg Law	BSc.(H) Biological Sciences Semester V	BS C12 Fundamentals of Genetics
		Plant Tissue Culture: concept of totipotency, callus, plant tissue culture laboratory set up, tissue culture media, phytohormones, cybrids, cell, tissue and organ culture, somatic embryogenesis, organogenesis, applications (somatic hybridization, embryo rescue, virus-free plants, somaclonal variations).	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB 101 Biophysical Techniques 1
		Limitations of cDNA synthesis (5'end RACE, 3' end RACE). **Solid phase synthesis of DNA:** (phosphoramidite based).	P.G. Diploma Biochemical Technology and Biotechnology Semester I	PGDMB 102 RDT I

	Practicals	1.Aseptic culture of explants on MS medium. (Plant Tissue Culture).	P.G. Diploma Biochemical Technology and Biotechnology Semester I	PGDMB L104 Biophysical Techniques I
		1. Plasmid DNA isolation by maxi-preparation. 2. Digestion of plasmid DNA with restriction enzymes	P.G. Diploma Biochemical Technology and Biotechnology Semester I	PGDMB L105 Recombinant DNA Technology I
	Internal Assessment	Mid Term Tests		
November	**Theory**	**Unit 7(contd).** Role of natural selection,Genetic drift. Speciation	BSc.(H) Biological Sciences Semester V	BS C12 Fundamentals of Genetics
		. **Animal tissue culture:** primary culture, cell lines, continuous cell lines (transformation, anchorage independence, contact inhibition etc) applications.	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB 101 Biophysical Techniques 1
		Sequence dependent and independent screening: PCR based, colony and plaque hybridization, functional screening, immunological screening, gain of function screening. HRT, HART	P.G. Diploma Biochemical Technology and Biotechnology Semester I	PGDMB 102 RDT I
	Practical	Repetition of any practical, as required.	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB L 104 BPT I
		Recovery of DNA from low-melting temperature agarose gel: using gel – extraction kit. Repetition of any practical, as required.	P.G. Diploma In Molecular and Biochemical Technology Semester I	PGDMB L105 RDT I

SEMESTER WISE TEACHING PLAN

SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Vandana Malhotra **Department: BIOCHEMISTRY**

Semester: I, III, V, B.Sc (H) Biological Sc. (Sem V)

Month		Topics	Course	Paper Code/Name
July	**Theory**	**Unit 1. Foundations of Biochemistry** **No. of HOURS: 6** Cellular and chemical foundations of life, Water: unique properties, weak interactions in aqueous systems, ionization of water, buffering action in biological system, water as a reactant and fitness of the aqueous environment.	B.Sc. (H) BIOCHEMISTRY I Year, Semester I	BCH C-1: Molecules of Life
		UNIT 5: Genetics of bacteria and viruses **No. of hours: 6** Mechanism of genetic exchange - conjugation, transformation and transduction. Gene mapping in bacteria.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C11 Concepts in Genetics
		Unit 4: The genetic code **No. of hours: 4** Degeneracy of the genetic code, wobble in the anticodon, features of the genetic code, nearly universal code.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C12 Gene Expression and Regulation
		Unit 5: Genome Dynamics-Transposable Genetic Elements No. of hours: 8 Prokaryotic transposable elements-IS elements, Composite transpossons, Tn-3 elements; Eukaryotic transposable elements- Ac-Ds system in maize and P-elements in drosophila; Uses of transposons	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics
	Practicals	• To determine CMC of SDS using a conductivity meter	B.Sc. BIOCHEMISTRY (Hons) II Year, Semester III	BCH C-6: Membrane Biology and Bioenergentics
		• To determine RNA concentration in given sample using Orcinol test (Bials Test)	B.Sc. BIOCHEMISTRY (Hons) III Year, Semester V	BCH-C12 Gene Expression and Regulation
		Isolation of plasmid DNA from *E.coli*	B.Sc Biological Science III yr Semester V	BS-C12 Fundamentals of Genetics

AUGUST	**Theory**	**Unit 1. Foundations of Biochemistry** **No. of HOURS: 6 Contd.** **UNIT III: Carbohydrates and Glycobiology No. of hours : 16** Monosaccharides - structure of aldoses and ketoses; Ring structure of sugars, conformations of sugars, mutarotation, anomers, epimers and enantiomers; Structure of biologically important 20 sugar derivatives, oxidation and reduction of sugars; Formation of disaccharides, reducing and non-reducing disaccharides; Polysaccharides – homo- and heteropolysaccharides, structural and storage polysaccharides; Structure and role of glycoconjugates - proteoglycans, glycoproteins and glycolipids (gangliosides and lipopolysaccharides); Carbohydrates as informational molecules.	B.Sc. (H) BIOCHEMISTRY I Year, Semester I	BCH C-1: Molecules of Life
		UNIT V: Genetics of bacteria and viruses **No. of hours: 6 Contd.**	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C11 Concepts in Genetics
		Unit 4 The genetic code **No. of hours: 4 Contd.** **Unit 5 Biosynthesis of proteins No. of hours : 10** Messenger RNA, transfer RNA, attachment of amino acids to tRNA, the ribosome - initiation, elongation and termination of translation, regulation of translation. Comparison of prokaryotic and eukaryotic protein synthesis. Use of antibiotics in understanding protein synthesis and applications in medicine.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C12 Gene Expression and Regulation
		Unit 5: Genome Dynamics-Transposable Genetic Elements **No. of hours: 8 Contd.**	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics
	Practicals :	• To determine CMC of SDS using a conductivity meter • To determine CMC of TritonX100 using a conductivity meter • To determine CMC of SDS and SDS using PAN dye • To study permeability of membrane to various oils	B.Sc. BIOCHEMISTRY (Hons) II Year, Semester III	BCH C-6: Membrane Biology and Bioenergentics

		• To determine RNA concentration in given sample using Orcinol test (Bials Test) REPEAT • To isolate Total nucleic acid from plant tissues • To isolate total RNA from plant tissue	B.Sc. BIOCHEMISTRY (Hons) III Year, Semester V	BCH-C12 Gene Expression and Regulation
		• Restriction enzyme digestion plasmid DNA. • Estimation of size of a DNA fragment after electrophoresis using DNA markers. • Construction of Restriction digestion maps from data provided.	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics
	Internal Assessment	Class Test -1, for all courses will be conducted pertaining to the syllabus done so far.		
SEPTEMBER	**Theory**	**UNIT III: Carbohydrates and Glycobiology CONTD**	B.Sc. (H) BIOCHEMISTRY I Year, Semester I	BCH C-1: Molecules of Life
		UNIT IV: Genetic definition of a gene No. of hours – 4 Complementation test, limitations of cis-trans test, intragenic complementation, rII locus of phage T4 and concept of cistron	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C11 Concepts in Genetics
		Unit 5 Biosynthesis of proteins **No. of hours : 10 Contd.** **Unit 7 Regulation of gene expression in prokaryotes No. of hours: 8** Principles of gene regulation, negative and positive regulation, concept of operons, regulatory proteins, activators, repressors, DNA binding domains, regulation of lac operon and trp operon, induction of SOS response, synthesis of ribosomal proteins, regulation by genetic recombination, transcriptional regulation in λ bacteriophage.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C12 Gene Expression and Regulation

		Unit 5: Genome Dynamics-Transposable Genetic Elements **No. of hours: 8 Contd.** **Unit 6 Genomics, Bioinformatics and Proteomics No. of Hours: 10** Genomes of bacteria, Drosophila and Humans; Human genome project; Introduction to Bioinformatics, sequence similarity and alignment, Gene feature Identification, Gene Annotation and analysis of transcription and translation	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics
	Practicals	• To study the effect of detergent on RBC cell lysis • Preparation of RBC ghost cells and SDS PAGE analysis of RBC membrane proteins • **Continuous Evaluation**	B.Sc. BIOCHEMISTRY (Hons) II Year, Semester III	BCH C-6: Membrane Biology and Bioenergentics
		• Growth curve of *E. coli* and calculation of generation time • To assess the effect of inhibitor on protein synthesis inhibition • **Continuous Evaluation**	B.Sc. BIOCHEMISTRY (Hons) III Year, Semester V	BCH-C12 Gene Expression and Regulation
		• Study of abnormal human karyotype • Study of pedigrees (dry lab) • Demonstration of DNA Fingerprinting	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics
	Internal Assessment	Assignments and Class Tests for all courses will be given to revise the syllabus done so far. Students who did not clear first test will be given a chance to appear for a retest.		
OCTOBER	**Theory**	**UNIT V: Nucleic Acids** **No. of hours : 10** Nucleotides - structure and properties of bases, pentoses, nucleosides; Nucleic acid structure – Watson-Crick model of DNA, forms of DNA; Structure of major species of RNA - mRNA, tRNA and rRNA; Nucleic acid chemistry - UV absorption, effect of acid and alkali on DNA; Other functions of nucleotides - source of energy, component of coenzymes and second messengers.	B.Sc. (H) BIOCHEMISTRY I Year, Semester I	BCH C-1: Molecules of Life

		Unit 10: Chromosomal aberrations No. of hours: 4 Variations in chromosome number- monosomy and trisomy of sex chromosome and autosomes. Variations in chromosome structure - inversions, deletions, duplications and translocations.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C11 Concepts in Genetics
		Unit 7 Regulation of gene expression in prokaryotes **No. of hours: 8 Contd.** **Unit 6 Protein targeting and degradation** **No. of hours: 6** Post translational modifications, glycosylation, signal sequences for nuclear transport, bacterial signal sequences, import of proteins by receptor mediated endocytosis, specialized systems for protein degradation.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C12 Gene Expression and Regulation
		Unit 6 Genomics, Bioinformatics and Proteomics **No. of Hours: 10 Contd.**	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics
	Practical	• Separation of photosynthetic pigments by TLC. • Isolation of mitochondria from liver and assay of marker enzyme SDH. • Study photosynthetic O2 evolution in hydrilla plant.	B.Sc. BIOCHEMISTRY (Hons) II Year, Semester III	BCH C-6: Membrane Biology and Bioenergentics
		• Diauxic Growth Curve • Continuous Evaluation II	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C12 Gene Expression and Regulation
		• Study of Linkage, recombination, gene mapping using marker based data from Drosophila. • Allium/phlox karyotype	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics
NOVEMBER	**Theory**	**UNIT V: Nucleic Acids** **No. of hours : 10 Contd.**	B.Sc. (H) BIOCHEMISTRY I Year, Semester I	BCH C-1: Molecules of Life

		Unit 10: Chromosomal aberrations No. of hours: 4 Contd.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C11 Concepts in Genetics
		Unit 6 Protein targeting and degradation No. of hours: 6 Contd.	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C12 Gene Expression and Regulation
	Practicals	• Isolation of chloroplast from spinach leaves, estimation of chlorophyll and photosynthetic activity. • Revision and Mock Exam	B.Sc. BIOCHEMISTRY (Hons) II Year, Semester III	BCH C-6: Membrane Biology and Bioenergentics
		• Revision and Mock Exam	B.Sc. (H) BIOCHEMISTRY III Year, Semester V	BCH-C12 Gene Expression and Regulation
		• Revision and Mock Exam	B.Sc. (H) BIOLOGICAL SCIENCE III Year, Semester V	BS-C12 Fundamentals of Genetics

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. NITIKA KAUSHAL

Department: BIOCHEMISTRY

Semester: I/III/V (2018-19)

Month		Topics	Course	Paper Code/Name
July	**Theory**	**Unit 1**: Prokaryotic (archaea and eubacteria) and eukaryotic cell (animal and plant cells), Cells as experimental models	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		Overview of the immune system: Introduction	PGDMB	PGDMB-103/ Immunology I
		Unit 5: Overview of The Cell Cycle; Eukaryotic Cell Cycle; Events of Mitotic Phase; Cytokinesis	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology
	Practical	Introduction to microscope	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		1. Preparation of buffers 2. Determination of PKa value for acetic acid	B. Sc (H) Biological Sciences II Yr Sem IV	BS C5: Proteins and Enzymes
		Isolation of organelles by sub cellular fractionation	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology
August	**Theory**	**Unit 3**: Structure of nuclear envelope, nuclear pore complex. Nuclear protein import and export, Structure and functions of mitochondria	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		Overview of the immune system: Innate immunity and Toll like receptors **Organization of the immune system**: cells of the immune system	PGDMB	PGDMB-103/ Immunology I
		Unit 5: Events of Meiosis and Fertilization, Regulation of Cell Division and Cell Growth; Apoptosis and Necrosis	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology
	Practical	Visualization of animal and plant cell by methylene blue. Visualization of animal and plant cell by safranin. Continuous evaluation I	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		1. Estimation of proteins by Biuret method 2. Estimation of proteins by Lowry's method 3. Separation of sugars by Thin Layer chromatography Evaluation	B. Sc (H) Biological Sciences II Yr Sem IV	BS C5: Proteins and Enzymes
		Identification of subcellular fractions by doing enzyme assays: Acid phosphatase, Succinate dehydrogenase Continuous evaluation I	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology

September	**Theory**	**Unit 3**: Chloroplasts and peroxisomes. **Unit 5**: Prokaryotic and eukaryotic cell wall, cell matrix proteins. Cell-matrix interactions and cell-cell interactions. Adherence junctions, desmosomes, hemidesmosomes, focal adhesions	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		Organization of the immune system: Organs of the immune system	PGDMB	PGDMB-103/ Immunology I
		Unit 5: Stem Cells and Maintenance of Adult Tissues, Hematopoiesis, Embryonic Stem Cells and Therapeutic Cloning **Unit 3**: Assembly and Dynamics of Microtubules and Intermediate Filaments; Assembly and organization of Cilia and Flagella, Muscle Contractility; Cell Polarization And migration	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology
	Practical	Study of cell organelles using electron - micrographs Sub cellular fractionation Continuous evaluation II	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		Assay of the enzyme acid phosphatase from germinated mung dal or β-amylase from Sweet potato beams Evaluation	B. Sc (H) Biological Sciences II Yr Sem IV	BS C5: Proteins and Enzymes
		Study of cell viability /death assay by use of trypan blue and MTT assay Identification and study of cancerous cells using permanent slides and photomicrographs. Continuous evaluation II	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology
October	**Theory**	**Unit 5 Cell wall and extracellular matrix**: Tight junctions, gap junctions and plasmodesmata **Unit 6 Cell cycle, cell death and cell renewal**: Eukaryotic cell cycle, restriction point, and checkpoints. Cell division	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		Generation of antibody diversity: multi gene organization of immunoglobulin genes, mechanism of gene rearrangement **The response of B cells to antigen**: B cell maturation, activation and proliferation	PGDMB	PGDMB-103/ Immunology I
		Unit 4: Cell-Cell Interactions and Cell-Matrix Interactions; Components of Extracellular Matrix: Collagen and Non-Collagen Components	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology

	Practicals	Acetocarmine staining of nuclear fraction Janus Green B staining of mitochondrial fraction Meiosis in onion flower bud Continuous evaluation III	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		1. Effect of pH on the activity of an enzyme 2. Progress curve of an enzyme Evaluation	B. Sc (H) Biological Sciences II Yr Sem IV	BS C5: Proteins and Enzymes
		Study of apoptosis through analysis of DNA fragmentation patterns Continuous evaluation III	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology
<u>November</u>	**Theory**	Revision	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		The response of B cells to antigen: Signaling pathways leading to B cell activation, germinal centers and formation of plasma cells, memory cells, class switching	PGDMB	PGDMB-103/ Immunology I
		Unit 4: Role of Cell Interaction in Development	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology
	Practical	Mock practical and Practical Examination	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-2: Cell Biology
		Mock practical and Practical Examination	B. Sc (H) Biological Sciences II Yr Sem IV	BS C5: Proteins and Enzymes
		Mock practical and Practical Examination	B.Sc. Biochemistry (H) III Yr, Sem V	BCH DSE-6 Advanced Cell Biology

SEMESTER WISE TEACHING PLAN-2019-20 (Even SEM)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Kameshwar Sharma YVR **Department: Biochemistry**
Assistant Professor
Semester: II/IV/VI

Month		Topics	Course	Paper Code/Name
JANUARY	**Theory**	• Introduction - Photosynthetic Complex - Light Reaction • Biomolecules Amino acids Nucleic acids	**B.Sc(H) Biochemistry Sem VI** **B.Sc(H) Biological Science - Sem II**	**BCH DSE-5** PLANT BIOCHEMISTRY **BSC3 BIOPHYSICS**
	Practicals	• Estimation of proteins using UV absorbance and Biurette method • Introduction to Bioinformatics • J mol and Java • PDB • BLAST • Primary Structure Prediction and Consensus • Glucose Estimation (GOD – POD) • Cholesterol Estimation	**B.Sc(H) Biochemistry – Sem II** **B.Sc(H) Biochemistry Sem IV** **B.Sc(H) Biological Science - Sem IV**	**BCH C-3 PROTEINS** **BCH SEC-4 : BIOINFORMATICS** **BSC3 METABOLISM AND INTEGRATION**
	Tutorials			

FEBRUARY	**Theory:**	• Photosystem Continuation... Photophosphorylation, Carbon Assimilation, Photorespiration	**B.Sc(H) Biochemistry Sem VI**	**BCH DSE-5** PLANT BIOCHEMISTRY
		• Biomolecules Carbohydrates Lipids	**B.Sc(H) Biological Science - Sem I**	**BSC3 BIOPHYSICS**
	Practicals:	• Estimation of proteins using Lowry's / Bradford's method. • Determination of isoelectric pH of casein. • Ammonium sulfate fractionation of proteins	**B.Sc(H) Biochemistry – Sem II**	**BCH C-3 PROTEINS**
		• Clustal Omega • Transmembrane Prediction • Tertiary Structure Prediction • **Evaluation** • Gene Structure Prediction (GENSCAN)	**B.Sc(H) Biochemistry Sem IV**	**BCH SEC-4 : BIOINFORMATICS**
		• Bilurubin Estimation • Estimation of Creatinine • Estimation of SGOT and SGPT (LFT)	**B.Sc(H) Biological Science - Sem IV**	**BSC3 METABOLISM AND INTEGRATION**
	Tutorials:	Class Tests / assignments		
MARCH	**Theory:**	• Plant Hormones • Plant Morphogenesis • Secondary Metabolites - Alkaloids (Online notes and ppt)*	**B.Sc(H) Biochemistry Sem VI**	**BCH DSE-5** PLANT BIOCHEMISTRY
		• Spectroscopy (Online notes and ppt)*	**B.Sc(H) Biological Science - Sem I**	**BSC3 BIOPHYSICS**

	Practicals	• Molecular visualization of sofwares : py mol and Ras mol from protein structures from PDB. • Separation of proteins using Ion Exchange Chromatography (Demonstration). • SDS – PAGE analysis of proteins: Demonstration	**B.Sc(H) Biochemistry – Sem II**	**BCH C-3 PROTEINS**
		• Revision Exercises	**B.Sc(H) Biochemistry Sem IV**	**BCH SEC-4 : BIOINFORMATICS**
		• Glucose Estimation (Repeat/Revision) • Isolation and Identification of Marker Enzymes (SDH,LDH)	**B.Sc(H) Biological Science - Sem IV**	**BSC3 METABOLISM AND INTEGRATION**
	Tutorials	Assignments / Tests		
	<u>Test</u>	**MID TERM Exams**		

APRIL	**Theory:**	• Secondary Metabolites - Phenols - Terpenoids	**B.Sc(H) Biochemistry Sem VI**	**BCH DSE-5** PLANT BIOCHEMISTRY
		• Biological Membranes • Mechanobiology	**B.Sc(H) Biological Science - Sem I**	**BSC3 BIOPHYSICS**

	Practicals:	Preparation of Mock Practicals and **Main Practical Examinations**	**B.Sc(H) Biochemistry – Sem II** **B.Sc(H) Biochemistry Sem IV** **B.Sc(H) Biological Science - Sem IV**	**BCH C-3 PROTEINS** **BCH SEC-4 : BIOINFORMATICS** **BSC3 METABOLISM AND INTEGRATION**
	Tutorials:			
MAY	**Theory:**	**Conduct of Theory Exams**		

Dr. Kameshwar Sharma YVR

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. NIMISHA SINHA

Department: BIOCHEMISTRY **Semester: I/III/V (2019-20)**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Unit 1 Introduction to Nutrition and Energy Metabolism No. of HOURS: 8 Defining Nutrition, role of nutrients. Unit of energy, Biological oxidation of foodstuff. Physiological energy value of foods, SDA.	B.Sc. (Hons) BIOCHEMISTRY III Year, Semester V	CBCS DSE 1 Nutritional Biochemistry
		Unit 1 Basic design of metabolism No. of Hours: 4 Autotrophs, heterotrophs, metabolic pathways, catabolism, anabolism, ATP as energy currency, reducing power of the cell.	B.Sc. (Hons). BIOCHEMISTRY II Year, Semester III	C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Unit 3: Respiration: Overview of glycolysis, Alternative reactions of glycolysis.	B.Sc. (Hons) BIOLOGICAL SCIENCE Hons) III Year Semester VI	CBCS DSE 9: Plant Biochemistry
	Practical	1. Verification of Beer's Law 2.	B.Sc. (Hons) BIOCHEMISTRY I Year, Semester I	CBCS GE: Tools and techniques in Biochemistry
		1. Glucose tolerance test. 2. Estimation of serum Ca2+. 3. Case studies	B.Sc. (Hons) BIOCHEMISTRY II Year, Semester III	CBCS C Hormone Biochemistry
		1. Drosophila for studying sex linked inheritance	B.Sc (Hons) BIOCHEMISTRY, III Year, Semester V	CBCS C11 Concepts of Genetics
AUGUST	**Theory**	Unit 1 contd…Measurement of energy expenditure. Basal and Resting metabolism, physical activity, factors affecting energy input - hunger, appetite, energy balance. Recommended Nutrient Intakes (RNI) and Recommended Dietary Allowances for different age groups. Unit 4 Dietary Proteins and health No. of HOURS: 8 Review of functions of proteins in the body, Digestion and absorption. Essential and Nonessential amino acids. Amino Acid Availability Antagonism, Toxicity and Imbalance, Amino acid Supplementation.	B.Sc. (Hons) BIOCHEMISTRY III Year, Semester V	CBCS DSE Nutritional Biochemistry
		Unit 2 Glycolysis No. of Hours: 4 Glycolysis - a universal pathway, reactions of glycolysis, fermentation, fates of pyruvate, feeder pathways for glycolysis, galactosemia	B.Sc. (Hons). BIOCHEMISTRY II Year, Semester III	C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS

		Unit 3 Gluconeogenesis and pentose phosphate pathway No. of Hours: 4 Synthesis of glucose from non-carbohydrate sources, reciprocal regulation of glycolysis and gluconeogenesis, pentose phosphate pathway and its importance		
		Unit 3: Respiration: Regulation of plant glycolysis, Translocation of metabolites across mitochondrial membrane, TCA cycle, Alternative NAD(P)H oxidative pathways; Cyanide resistant respiration. Unit 3: Biological Nitrogen fixation by free living and in symbiotic association, structure and function of enzyme Nitrogenase. Nitrate assimilation: Nitrate and Nitrite reductase.	B.Sc. (Hons) BIOLOGICAL SCIENCE Hons) III Year Semester VI	CBCS DSE 9: Plant Biochemistry
	Practical	1. Estimation of proteins by Biuret/Lowry method 2. Separation of amino acid acids by TLC/paper chromatography	B.Sc. (Hons) BIOCHEMISTRY I Year, Semester I	CBCS GE: Tools and techniques in Biochemistry
		1. Estimation of serum T4, T3 and TSH 2. Estimation of serum electrolytes. 3. Case studies	B.Sc. (Hons) BIOCHEMISTRY II Year, Semester III	CBCS C Hormone Biochemistry
		1. Drosophila maintainence, media preparation and Monohybrid crosses in Drosophila for studying sex linked inheritance	B.Sc (Hons) BIOCHEMISTRY, III Year, Semester V	CBCS C11 Concepts of Genetics
SEPTEMBER	**Theory**	Unit 4 contd… Effects of deficiency. Food source and Recommended Dietary Allowances for different age group. Amino acid pool. NPU, Biological Value , Nitrogen balance. PEM and Kwashiorkor. Unit 5 Fat and water soluble Vitamins No. of HOURS: 8 Vitamin A, D, E, K Dietary sources, RDA, Adsorption, Distribution, Metabolism and excretion(ADME), Deficiency. Role of Vitamin A as an antioxidant, in Visual cycle, dermatology and immunity. Role of Vitamin K in Gamma carboxylation. Role of Vitamin E as an antioxidant. Extra-skeletal role of Vitamin D and its effect on bone physiology. Hypervitaminosis..	B.Sc. (Hons) BIOCHEMISTRY III Year, Semester V	CBCS DSE Nutritional Biochemistry
		Unit 4 Glycogen metabolism No. of Hours: 4 Glycogenesis and glycogenolysis, regulation of glycogen metabolism, glycogen storage diseases Unit 5 Citric acid cycle No. of Hours: 6 Production of acetyl CoA, reactions of citric acid cycle, anaplerotic reactions, amphibolic role, regulation of citric acid cycle, glyoxalate pathway, coordinated regulation of glyoxalate and citric acid pathways.	B.Sc. (Hons). BIOCHEMISTRY II Year, Semester III	C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Primary and secondary ammonia assimilation in plants; ammonia assimilation by Glutamine synthetase-glutamine oxoglutarate amino transferase (GS-GOGAT) pathway. Seed storage proteins in legumes and cereals Unit 3: Cell and tissue culture techniques, types of cultures: organ and explants culture, callus culture, cell suspension culture and protoplast culture.	B.Sc. (Hons) BIOLOGICAL SCIENCE Hons) III Year Semester VI	CBCS DSE 9: Plant Biochemistry

	Practical	1. To perform agarose gel electrophoresis 2. To isolate mitochondria by differential centrifugation 3. Continuous evaluation	B.Sc. (Hons) BIOCHEMISTRY I Year, Semester I	CBCS GE: Tools and techniques in Biochemistry
		1. Sub-cellular fractionation. 2. Visualization of nuclear fraction by acetocarmine stain. 3. Staining and visualization of mitochondria by Janus green stain 4. Continuous evaluation	B.Sc. (Hons) BIOCHEMISTRY II Year, Semester III	CBCS C Hormone Biochemistry
		1. Squash preparation of salivary glands of Dipteran larva to observe polytene chromosomes. 2. Smear technique to demonstrate sex chromatin in buccal epithelial cells. 3. Study of abnormal human karyotype and pedigrees (dry lab) 4. Continuous evaluation	B.Sc (Hons) BIOCHEMISTRY, III Year, Semester V	CBCS C11 Concepts of Genetics
	Test	Combined test conducted by teachers teaching this course.	B.Sc. BIOCHEMISTRY Hons.) I Year, Semester I	CBCS C2: Cell Biology
		Combined test conducted by teachers teaching this course.	B.Sc. BIOLOGICAL SCIENCE Hons.) III Year, Semester I	CBCS DSE8: Plant Biochemistry
		Combined test conducted by teachers teaching this course.	B.Sc. BIOCHEMISTRY Hons) II Year, Semester III	C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
	ASSIGNMENTS AND MID TERM EXAMS			
OCTOBER	**Theory**	Unit 5 contd….Vitamin C role as cofactor in amino acid modifications. Niacin- Metabolic interrelation between tryptophan, Niacin and NAD/ NADP. Vitamin B6-Dietary source, RDA, conversion to Pyridoxal Phosphate. Role in metabolism, Biochemical basis for deficiency symptoms. Vitamin B12 and folate; Dietary source, RDA, absorption, metabolic role Biochemical basis for deficiency symptoms	B.Sc. (Hons) BIOCHEMISTRY III Year, Semester V	CBCS DSE Nutritional Biochemistry
		Unit 6 Synthesis of carbohydrates No. of Hours: 8 Calvin cycle, regulation of calvin cycle, regulated synthesis of starch and sucrose, photorespiration. C4 and CAM pathways, synthesis of cell wall polysaccharides, integration of carbohydrate metabolism in plant cell.	B.Sc. (Hons). BIOCHEMISTRY II Year, Semester III	C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Unit 6: Plant regeneration pathways: organogenesis and somatic embryogenesis. Applications of cell and tissue culture and somoclonal variation.	B.Sc. (Hons) BIOLOGICAL SCIENCE Hons) III Year Semester VI	CBCS DSE 9: Plant Biochemistry
	Practical	1. Visualization of cells by methylene blue. 2. Revision of practicals, Mock Practical Examination	B.Sc. (Hons) BIOCHEMISTRY I Year, Semester I	CBCS GE: Tools and techniques in Biochemistry

		1. HCG based pregnancy test. 2. Case Studies 3. Continuous evaluation 4. Revision of practicals, Mock Practical Examination	B.Sc. (Hons) BIOCHEMISTRY II Year, Semester III	CBCS C Hormone Biochemistry
		1. PTC testing in a population and calculation of allele and genotype frequencies. 2. Continuous evaluation 3. Revision of practicals, Mock Practical Examination	B.Sc (Hons) BIOCHEMISTRY, III Year, Semester V	CBCS C11 Concepts of Genetics
NOVEMBER	**Theory**	Unit 8 Food and drug interactions and Nutriceuticals No. of HOURS: 4 Nutrient interactions affecting ADME of drugs, Alcohol and nutrient deficiency, Antidepressants, psychoactive drugs and nutrient interactions,	B.Sc. (Hons) BIOCHEMISTRY III Year, Semester V	CBCS DSE 1 Nutritional Biochemistry
		Unit 11 Integration of carbohydrate metabolism	B.Sc. (Hons). BIOCHEMISTRY II Year, Semester III	C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Revision	B.Sc. (Hons) BIOLOGICAL SCIENCE Hons) III Year Semester VI	CBCS DSE 9: Plant Biochemistry
	Practical	Revision of practicals	B.Sc. (Hons) BIOCHEMISTRY I Year, Semester I	CBCS GE: Tools and techniques in Biochemistry
		Revision of practicals	B.Sc. (Hons) BIOCHEMISTRY II Year, Semester III	CBCS C Hormone Biochemistry
		Revision of practicals	B.Sc (Hons) BIOCHEMISTRY, III Year, Semester V	CBCS C11 Concepts of Genetics

SEMESTER WISE TEACHING PLAN – 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr.Ravindra Varma Polisetty
Department: Biochemistry **Semester : I/III/V**

Month		Topics	Course	Paper Code/Name
JULY	Theory			
	Practicals			
	Tutorials			
AUGUST	Theory:	Electromagnetic radiation, interaction of radiation with biomolecules, principle of UV-visible absorption spectrophotometry, Lambert's Law, Beer's Law, working of a spectrophotometer. Applications of UV-visible absorption spectrophotometry in biochemistry.	GE	Techniques in Biochemistry (BCH GE-2)
		Preparation of the sample, Ion-exchange chromatography	SBCH	BCH SEC-2 PROTEIN PURIFICATION
		Model organisms: Escherichia coli, Saccharomyces cerevisiae, Drosophila melanogaster, Caenorhabditis elegans, Danio rerio and Arabidopsis thaliana, Basic principles of heredity.	TBCH	BCH C-11: CONCEPTS IN GENETICS
		Mendel's work on transmission of traits, Genetic Variation, Molecular basis of Genetic Information. Principles of Inheritance, Chromosome theory of inheritance, Laws of probability, Pedigree analysis, Incomplete dominance and co-dominance, Multiple alleles, Lethal alleles	TBS	BS-C12: FUNDAMENTALS OF GENETICS
	Practicals:	1.Safety measures in laboratories. 2. Preparation of normal and molar solutions. 3. Preparation of buffers.	FBCH	BCH C-1: MOLECULES OF LIFE
		1.Glucose tolerance test. 2.Estimation of serum Calcium	SBCH	BCH C-7: HORMONE: BIOCHEMISTRY
		1.Induction of hydrolytic enzymes proteinases /amylases/lipase during germination, 2. Extraction and assay of Urease from Jack bean	TBS	DSE-9: PLANT BIOCHEMISTRY
	Tutorials:			
SEPTEMBER	Theory:	Fluorescence spectrophotometry: Phenomena of fluorescence, intrinsic and extrinsic fluorescence, applications of fluorescence in biochemistry. Principle of centrifugation, basic rules of sedimentation, sedimentation coefficient. Various types of centrifuges, low speed centrifuge, high speed centrifuge and ultracentrifuge, types of rotors. Application of centrifugation, differential centrifugation, density gradient centrifugation- zonal and isopycnic.	GE	Techniques in Biochemistry (BCH GE-2)

		Gel filtration chromatography. Affinity chromatography. Laws of probability & binomial expansion, formulating and testing genetic hypothesis, chromosomal basis of Mendelism -Sutton and Boveri hypothesis with experimental evidences. Linkage and Crossing over, cytological basis of crossing over, Molecular mechanism of crossing over. Recombination frequency as a measure of linkage intensity, two factor and three factor crosses, Interference and Coincidence	SBCH TBCH TBS	BCH SEC-2 PROTEIN PURIFICATION TECHNIQUES BCH C-11: CONCEPTS IN GENETICS BS-C12: FUNDAMENTALS OF GENETICS
	Practicals:	4. Determination of pKa of acetic acid and glycine. 5. Qualitative tests for carbohydrates, lipids, amino acids, proteins and nucleic acids. 3. Estimation of serum T4. 4.HCG based pregnancy test. 3.Estimation of carotene/ascorbic acid/phenols/tannins in fruits and vegetables, 4. Separation of photosynthetic pigments by TLC	FBCH SBCH TBS	BCH C-1: MOLECULES OF LIFE BCH C-7: HORMONE: BIOCHEMISTRY DSE-9: PLANT BIOCHEMISTRY
	Tutorials:			
	Assignments			
OCTOBER	Theory:	Types of media, selective and enrichment media, sterilization methods, bacterial culturing, CFU determination, growth curves, Generation/doubling times, cell counting, viable and non- viable. Growth and maintenance of cultures, biosafety cabinets, CO2incubator. Staining procedures, plating and microtony. Electrophoresis, Demonstration of High Performance Liquid Chromatography (HPLC) Linkage and crossing over, genetic mapping in eukaryotes, centromere mapping with ordered tetrads, cytogenetic mapping with deletions and duplications in *Drosophila*, detection of linked loci by pedigree analysis in humans and somatic cell hybridization for positioning genes on chromosomes. Genomes of bacteria, Drosophila and Humans; Human genome project; Introduction to Bioinformatics, Gene and Protein databases, sequence similarity and alignment, Gene feature identification. Gene Annotation and analysis of transcription and translation; Post-translational analysis-Protein interaction	GE SBCH TBCH TBS	Techniques in Biochemistry (BCH GE-2) BCH SEC-2 PROTEIN PURIFICATION TECHNIQUES BCH C-11: CONCEPTS IN GENETICS BS-C12: FUNDAMENTALS OF GENETICS
	Practicals:	6. Separation of amino acids/ sugars/ bases by thin layer chromatography. 7. Estimation of vitamin C.	FBCH	BCH C-1: MOLECULES OF LIFE BCH C-7:

		5. Estimation of serum electrolytes. 6. Case studies. 5. Culture of plant plants (explants).		HORMONE: BIOCHEMISTRY DSE-9: PLANT BIOCHEMISTRY
	Tutorials:			
	Test			
NOVEMBER	Theory:			
	Practicals:			
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Sarika Yadav **Department: BIOCHEMISTRY**

Semester: I/III/V (2019-2020)

Month		Topics	Course	Paper Code/Name
July	**Theory**	**Introduction to Biomembranes:** Composition of Biomembranes - prokaryotic, eukaryotic, neuronal and subcellular membranes. Study of membrane proteins.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-6: Membrane Biology and Bioenergetics
		Preparation of sample, different methods of cell lysis, salting out, dialysis.	GE- Biochemistry I Yr, Sem. II	BCH GE-2 Techniques in Biochemistry
		Overview of The Endomembrane System	B. Sc. (H) Biochemistry III Yr, Sem V	BCH DSE-6: ADVANCED CELL BIOLOGY
	Practical	**Practicals**		
		Estimation of blood glucose.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Safety measures in laboratories. Preparation of normal and molar solutions	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-1 Molecules of Life
		Induction of hydrolytic enzymes proteinases /amylases/lipase during germination	B. Sc (H) Biol Sc, III Yr, Sem V	DSE-9: PLANT BIOCHEMISTRY (PRACTICALS)
August	**Theory**	Fluid mosaic model with experimental proof. Monolayer, planer bilayer and liposomes as model membrane systems. Polymorphic structures of amphiphilic molecules in aqueous solutions - micelles and bilayers. CMC, critical packing parameter. Membrane asymmetry. Macro and micro domains in membranes. Membrane skeleton, lipid rafts, caveolae and tight junctions.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-6: Membrane Biology and Bioenergetics

		Introduction to chromatography. Different modes of chromatography: paper, thin layer and column. Preparative and analytical applications. Principles and applications of: Paper Chromatography, Thin Layer Chromatography, Ion Exchange Chromatography, Molecular Sieve Chromatography, Affinity Chromatography.	GE- Biochemistry I Yr, Sem. II	BCH GE-2 Techniques in Biochemistry
		Targeting, modification and sorting of Proteins From And Into Endoplasmic Reticulum; Synthesis And Targeting Mitochondrial Protein; Chloroplast Proteins And Peroxisomal Proteins;	B. Sc. (H) Biochemistry III Yr, Sem V	BCH DSE-6: ADVANCED CELL BIOLOGY
	Practical:	Isolation of cholesterol from egg yolk and its estimation.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Preparation of buffers, phosphate and acetate buffers. Determination of pKa of acetic acid and glycine. Qualitative tests for carbohydrates.	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-1 Molecules of Life
		Extraction and assay of Urease from Jack bean. Estimation of carotene/ascorbic acid/phenols/tannins in fruits and vegetables	B. Sc (H) Biol Sc, III Yr, Sem V	DSE-9: PLANT BIOCHEMISTRY (PRACTICALS)
September	**Theory**	**RBC membrane architecture.** **Membrane dynamics:** Lateral, transverse and rotational motion of lipids and proteins. Techniques used to study membrane dynamics - FRAP, TNBS labeling etc. Transition studies of lipid bilayer, transition temperature. Membrane fluidity, factors affecting membrane fluidity. Thermodynamics of transport, Simple diffusion and facilitated diffusion, Passive transport - glucose transporter, anion transporter and porins**.** Primary active transporters - P type ATPases, V type ATPases, F type ATPases.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-6: Membrane Biology and Bioenergetics
		Basic Principle of electrophoresis, Paper electrophoresis, Gel electrophoresis, discontinuous gel electrophoresis, PAGE, SDS-PAGE, Native gels, denaturing gels, agarose gel 105 electrophoresis, buffer systems in electrophoresis, electrophoresis of proteins and nucleic acids	GE- Biochemistry I Yr, Sem. II	BCH GE-2 Techniques in Biochemistry

		Mechanism Of Vesicular Transport; Coat Proteins And Vesicle Budding; Vesicle Fusion; Targeting Of Proteins To Membranes; Receptor Mediated Endocytosis. Function and origin of The Cytoskeleton; Organization and Assembly of Actin Filaments And Myosin;	B. Sc. (H) Biochemistry III Yr, Sem V	BCH DSE-6: ADVANCED CELL BIOLOGY
	Practical	Isolation of lecithin, identification by TLC, and its estimation	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Qualitative tests for amino acids, proteins. Qualitative tests for nucleic acids. Separation of amino acids/ sugars by thin layer chromatography/paper chromatography	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-1 Molecules of Life
		Estimation of carotene/ascorbic acid/phenols/tannins in fruits and vegetables (Repeat). Separation of photosynthetic pigments by TLC	B. Sc (H) Biol Sc., III Yr, Sem V	DSE-9: PLANT BIOCHEMISTRY (PRACTICALS)
October	**Theory**	Secondary active transporters – lactose permease, Na+-glucose symporter. ABC family of transporters - MDR, CFTR. Group translocation. Ion channels - voltage-gated ion channels (Na+/K+ voltage-gated channel), ligand-gated ion channels (acetyl choline receptor), aquaporins, bacteriorhodopsin. Ionophores - valinomycin, gramicidin. Types of vesicle transport and their function - clathrin, COP I and COP II coated vesicles.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-6: Membrane Biology and Bioenergetics
		protein and nucleic acid blotting, detection and identification (staining procedures), molecular weight determination, isoelectric focusing of proteins. Principle of light microscopy, phase contrast microscopy	GE- Biochemistry I Yr, Sem. II	BCH GE-2 Techniques in Biochemistry
		Function and origin of The Cytoskeleton; Organization and Assembly of Actin Filaments And Myosin; Assembly and Dynamics of Microtubules.	B. Sc. (H) Biochemistry III Yr, Sem V	BCH DSE-6: ADVANCED CELL BIOLOGY
	Practical	Sugar fermentation by microorganisms. Assay of salivary amylase.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS

		Separation of bases by thin layer chromatography/paper chromatography. Estimation of vitamin C.	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-1 Molecules of Life
		Theory of Culture of plants (explants).	B. Sc (H) Biol Sc, III Yr, Sem V	DSE-9: PLANT BIOCHEMISTRY (PRACTICALS)
November	**Theory**	Molecular mechanism of vesicular transport. Membrane fusion. Receptor mediated endocytosis of transferrin.	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-6: Membrane Biology and Bioenergetics
		luorescence microscopy. Permanent and temporary slide preparation, histology and staining.	GE- Biochemistry I Yr, Sem. II	BCH GE-2 Techniques in Biochemistry
		Ultracentrifugation, Fluorescence Microscopy- FACS, FRET, Confocal Microscopy, Electron Microscopy,	B. Sc. (H) Biochemistry III Yr, Sem V	BCH DSE-6: ADVANCED CELL BIOLOGY
	Practical	Revision of practicals, Mock Practical Examination	B.Sc. Biochemistry (H) II Yr, Sem III	CBCS C-5: METABOLISM OF CARBOHYDRATES AND LIPIDS
		Revision of practicals, Mock Practical Examination	B.Sc. Biochemistry (H) I Yr, Sem I	BCH C-1 Molecules of Life
		Revision of practicals, Mock Practical Examination	B. Sc (H) Biol Sc, III Yr, Sem V	DSE-9: PLANT BIOCHEMISTRY (PRACTICALS)

SEMESTER WISE
TEACHING PLAN
SRI
VENKATESWAR
A COLLEGE

Name of the Faculty: Meeta Bhardwaj Department: Biochemistry

Semester : I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	P G Diploma & GE Classes begin in August.		
	Practicals	Isolation of plasmid DNA from E.coli.	BSc. (H) Biological Sciences Sem V	BS-C12 Fundamentals of Genetics
		Anthropometric Measurements	Bsc (H) Biochemistry Sem V	BCH DSE I Nutritional Biochemistry
AUGUST	**Theory:**	Biology of plasmids (conjugative, nonconjugative, relaxed and stringent control of copy number , incompatibility) Plasmid based vectors(one step and two-step selection); Biology of Lambda phage (lytic versus lysogenic cycle), λ bacteriophage based vectors (insertional and replacement),in vitro packaging; Biology of M13 bacteriophage, M13 phage based vectors, phagemids	PG Diploma Sem I	PGD MB 102 – Recombinant DNA Technology
		Autoimmune diseases Concepts in immune recognition - self and non self discrimination, organ specific autoimmune diseases – Hashimoto's thyroiditis, Grave's disease, Myasthenia Gravis;.	Bsc (H) Biochemistry Sem III	BCH GE - 7

	Practicals:	Preparation and sterilization of LB medium. Obtaining isolated colonies of E.coli by streak plate and spread plate method. To study the growth curve of E.coli DH5α	PG Diploma Sem I	PGD MBL 105 – Recombinant DNA Technology I
		Quantitative precipitation test Immuno diffusion : Single radial immunodiffusion, double immunodiffusion Immuno electrophoresis	PG Diploma Sem I	PGD MBL 106 – Immunology I
		Restriction enzyme digestion plasmid DNA. Estimation of size of a DNA fragment after electrophoresis using DNA markers. Construction of Restriction digestion maps from data provided.	BSc (H) Biological Sciences Sem V	BS-C12 Fundamentals of Genetics
		Kwashiorkor, Marasmus – Case studies Nutritional assessment of food items Determination of oxidative stress: TBARS estimation MDA estimation	BSc (H) Biochemistry Sem V	BCH DSE I Nutritional Biochemistry
SEPTEMBER	**Theory:**	High capacity vectors: cosmids, P1 phage based vectors, PACs, yeast artificial chromosomes, bacterial artificial chromosomes. Advantages of each vector. Radiolabelled probe preparation via nick translation, random priming, 3' end labeling, 5'end labeling	PG Diploma Sem I	PGD MB 102 – Recombinant DNA Technology
		Systemic diseases - SLE, rheumatoid arthritis; Diabetes Mellitus-I. Viral infection (polio, measles, mumps, influenza, HIV);	Bsc (H) Biochemistry Sem III	BCH GE 7

	Practicals:	Isolation of chromosomal DNA of E.coli Isolation of plasmid DNA by the alkaline lysis method (maxi-preparation and mini-preparation) and the boiling lysis method.	PG Diploma Sem I	PGD MBL 105 - RDT
		Electroimmunoprecipitation:Counter immunoelectrophoresis, Rocket immunoelectrophoresis, Crossed immunoelectrophoresis Staining of precipitin bands in gel Identification of human blood groups and Rh factor	PG Diploma Sem I	PGD MBL 106 – Immunology I
		Study of abnormal human karyotype Study of pedigrees (dry lab) Demonstration of DNA Fingerprinting	BSc (H) Biological Sciences Sem V	BS-C12 Fundamentals of Gentics
		BMR Calculation Glutathione Reductase estimation Catalase estimation		
OCTOBER	**Theory:**	Guessmers and degenerate probes, Non radioactive probes preparation using Biotin, Digoxigenin.	PG Diploma Sem I	PGD MB 102 – Recombinant DNA Technology
		Bacterial infections (tetanus, diphtheria, tuberculosis, typhoid, cholera); Protozoan (Plasmodium and Trypanosoma) and parasitic infections. Vaccines against diseases. General strategies in the design and development of vaccines.	Bsc (H) Biochemistry Sem III	BCH GE -7

	Practicals:	Digestion of plasmid DNA with restriction enzymes Recovery of DNA from low-melting temperature agarose gel: organic extraction etc.	PG Diploma Sem I	PGD MBL 105 - RDT
		Passive agglutination nhibition of agglutination using latex particles Preparation of lymphocytes from blood	PG Diploma Sem I	PGD MBL 106 – Immunoloy I
		Study of Linkage, recombination, gene mapping using marker based data fromDrosophila. Allium/phlox karyotype	BSc (H) Biological Sciences	BS-C12 Fundamentals of Genetics
		Polyphenol estimation in Plants Vitamin E assay	BSc (H) Biochemistry Sem V	BCH DSE I Nutritional Biochemistry
NOVEMBER	**Theory:**	Revision of syllabus, class assignments	PG Diploma Sem I	PGD MB 102 – Recombinant DNA Technology
		Outline of hormone action and imbalances leading to disease - precocious puberty, hyper and hypopituitarism. Hyper and hypothyroidism.	BSc (H) Biochemistry Sem III	BCH GE - 7
	Practicals:	Mock Evaluation and Repeat experiments	PG Diploma Sem I	PGD MBL 105 - RDT
		Mock Evaluation and Repeat experiments	PG Diploma Sem I	PGD MBL 106 – Immunoloy I
		Mock Evaluation and Repeat experiments	BSc (H) Biological Sciences Sem V	BS-C12 Fundamentals of Genetics
		Mock Evaluation and Repeat experiments	BSc (H) Biochemistry Sem V	BCH DSE I Nutritional Biochemistry

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty : Dr. S. Vivekananthan
Department : Tamil
CBCS Semester : I

Month	Theory/Practical	Topics	Course	Paper code/Name
July	Theory	History of Indian Language (Tamil) Semantic Changes	B.A Prog Tamil Language	62081104
	Theory	Oral Traditions : Folk Tales, Songs and Myth Types and Explanation of Folk songs	B.A Prog Tamil Discipline	62081108
	Theory	MIL Communications (Tamil) Interview	B.A Prog Tamil AECC	72082807
August	Theory	History of Indian Language (Tamil) Phonological and Morphological Changes	B.A Prog Tamil Language	62081104
	Theory	Oral Traditions : Folk Tales, Songs and Myth Folk songs and Myth	B.A Prog Tamil Discipline	62081108
	Theory	MIL Communications (Tamil) Group Discussion and Conversation	B.A Prog Tamil AECC	72082807

Month	Theory/Practical	Topics	Course	Paper code/Name
September	Theory Assignment	History of Indian Language (Tamil) Syntactical Changes History of Tamil Language (I Part)	B.A Prog Tamil Language	62081104
	Theory Assignment	Oral Traditions : Folk Tales, Songs and Myth Myth and literature Folk Songs and Myth	B.A Prog Tamil Discipline	62081108
	Theory Assignment	MIL Communications (Tamil) Letter writing Interview and Letter writing	B.A Prog Tamil AECC	72082807
October	Theory Mid-Term Test	History of Indian Language (Tamil) History of Scripts History of Tamil Language	B.A Prog Tamil Language	62081104
	Theory Mid-Term Test	Oral Traditions : Folk Tales, Songs and Myth Mythology Oral Traditions	B.A Prog Tamil Discipline	62081108
	Theory Mid-Term Test	MIL Communications (Tamil) Comprehension Tamil Communications	B.A Prog Tamil AECC	72082807
November	Theory	History of Indian Language (Tamil) History of Tamil Scripts	B.A Prog Tamil Language	62081104
	Theory	Oral Traditions : Folk Tales, Songs and Myth Growth of literature from Myth	B.A Prog Tamil Discipline	62081108
	Theory	MIL Communications (Tamil) Practical writing of Tamil Communications	B.A Prog Tamil AECC	72082807

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty : Dr. S. Vivekananthan
Department : Tamil
CBCS Semester : III

Month	Theory/Practical	Topics	Course	Paper code/Name
July	Theory	History of Ancient Tamil Lierature Three Sangams	B.A Prog Tamil Language	62081325
	Theory	Cultural Behavior of the Tamils Cultural Behavior	B.A Prog Tamil Discipline	62081327
August	Theory	History of Ancient Tamil Lierature Ettut-Thokai and Pathuppaattu	B.A Prog Tamil Language	62081325
	Theory	Cultural Behavior of the Tamils Customs and Social aspects of Tamils	B.A Prog Tamil Discipline	62081327
September	Theory Assignment	History of Ancient Tamil Lierature Ettut-Thokai and Pathuppaattu Sangam Literature	B.A Prog Tamil Language	62081325
	Theory Assignment	Cultural Behavior of the Tamils Customs and Social aspects of Tamils Festivals of the Tamils	B.A Prog Tamil Discipline	62081327

Month	Theory/Practical	Topics	Course	Paper code/Name
October	Theory Mid Term Test	<u>History of Ancient Tamil Lierature</u> Ethical Literature and major five Epics History of Ancient Tamil Lierature	B.A Prog Tamil Language	62081325
	Theory Mid Term Test	<u>Cultural Behavior of the Tamils</u> Festivals and Rituals Cultural Behavior of the Tamils	B.A Prog Tamil Discipline	62081327
November	Theory	<u>History of Ancient Tamil Lierature</u> Minor five Epics	B.A Prog Tamil Language	62081325
	Theory	<u>Cultural Behavior of the Tamils</u> Ballads and cultural issues	B.A Prog Tamil Discipline	62081327

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty : Dr. S. Vivekananthan
Department : Tamil
CBCS Semester : V

Month	Theory/Practical	Topics	Course	Paper code/Name
July	Theory	Selected Texts : Novel & Short Story (Tamil) History of Tamil short Story	B.A Prog Tamil Discipline	62087504
August	Theory	Selected Texts : Novel & Short Story (Tamil) First Five Short Stories	B.A Prog Tamil Discipline	62087504
September	Theory Assignment	Selected Texts : Novel & Short Story (Tamil) Second Five Short Stories Modern Short Stories in History of short story Literature	B.A Prog Tamil Discipline	62087504
October	Theory Mid Term Test	Selected Texts : Novel & Short Story (Tamil) Last Two Short stories and cultural reflections of the fictions Short story and Novel	B.A Prog Tamil Discipline	62087504
November		Selected Texts : Novel & Short Story (Tamil) Sociological perspectives in Short stories	B.A Prog Tamil Discipline	62087504

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty : Dr. S. Seenivasan
Department : Tamil
CBCS Semester : I

Month	Theory/Practical	Topics	Course	Paper code/Name
July	Theory	History of Indian Language (Tamil) Sources of Tamil Language History	B.A Prog Tamil Language	62081104
	Theory	Oral Traditions : Folk Tales, Songs and Myth Folk Traditions in Tamil	B.A Prog Tamil Discipline	62081108
	Theory	MIL Communications (Tamil) History of Translation	B.A Prog Tamil AECC	72082807
August	Theory	History of Indian Language (Tamil) Dravidian Languages and Tamil	B.A Prog Tamil Language	62081104
	Theory	Oral Traditions : Folk Tales, Songs and Myth Definition and Types of Folk Tales	B.A Prog Tamil Discipline	62081108
	Theory	MIL Communications (Tamil) History and Types of Public Speech	B.A Prog Tamil AECC	72082807

Month	Theory/Practical	Topics	Course	Paper code/Name
September	Theory Assignment	History of Indian Language (Tamil) Special Features in South Dravidian Languages History of Tamil Language (II Part)	B.A Prog Tamil Language	62081104
	Theory Assignment	Oral Traditions : Folk Tales, Songs and Myth Folk-lore and Culture of Tamils Folk Tales and Culture of the Tamils	B.A Prog Tamil Discipline	62081108
	Theory Assignment	MIL Communications (Tamil) Business Letter writing in Tamil Public Speech in Tamil	B.A Prog Tamil AECC	72082807
October	Theory Mid-Term Test	History of Indian Language (Tamil) Dialects in Tamil History of Tamil Language	B.A Prog Tamil Language	62081104
	Theory Mid-Term Test	Oral Traditions : Folk Tales, Songs and Myth Customs and Culture through Folk Literature Oral Traditions	B.A Prog Tamil Discipline	62081108
	Theory Mid-Term Test	MIL Communications (Tamil) Practical Translations Tamil Communications	B.A Prog Tamil AECC	72082807
November	Theory	History of Indian Language (Tamil) Types of Dialects	B.A Prog Tamil Language	62081104
	Theory	Oral Traditions : Folk Tales, Songs and Myth Analysis of Tamil Literary text through Folk tale	B.A Prog Tamil Discipline	62081108
	Theory	MIL Communications (Tamil) Practical Public Speeches in Tamil	B.A Prog Tamil AECC	72082807

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty : Dr. S. Seenivasan
Department : Tamil
CBCS Semester : III

Month	Theory/Practical	Topics	Course	Paper code/Name
July	Theory	History of Ancient Tamil Literature Tamil Bakthi Literature	B.A Prog Tamil Language	62081325
	Theory	Cultural Behavior of the Tamils Definition of Culture	B.A Prog Tamil Discipline	62081327
August	Theory	History of Ancient Tamil Literature Nayanmars in Bakthi Literature	B.A Prog Tamil Language	62081325
	Theory	Cultural Behavior of the Tamils Life style of Tamils	B.A Prog Tamil Discipline	62081327
September	Theory Assignment	History of Ancient Tamil Literature Azhvars in Bakthi Literature Bakthi Literature in Tamil	B.A Prog Tamil Language	62081325
	Theory Assignment	Cultural Behavior of the Tamils Social of Tamils Deities of the Tamils	B.A Prog Tamil Discipline	62081327

Month	Theory/Practical	Topics	Course	Paper code/Name
October	Theory Mid Term Test	History of Ancient Tamil Literature Saiva and Vaishnava Literature History of Ancient Tamil Literature	B.A Prog Tamil Language	62081325
	Theory Mid Term Test	Cultural Behavior of the Tamils History of Culture through Literature Cultural Behavior of the Tamils	B.A Prog Tamil Discipline	62081327
November	Theory	History of Ancient Tamil Literature Minor Literature in Tamil	B.A Prog Tamil Language	62081325
	Theory	Cultural Behavior of the Tamils Tamil Medicines	B.A Prog Tamil Discipline	62081327

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE

Name of the Faculty : Dr. S. Seenivasan
Department : Tamil
CBCS Semester : V

Month	Theory/Practical	Topics	Course	Paper code/Name
July	Theory	Selected Texts : Novel & Short Story (Tamil) History of Tamil Novel Literature	B.A Prog Tamil Discipline	62087504
August	Theory	Selected Texts : Novel & Short Story (Tamil) Characterization of the Novel THAGANAM	B.A Prog Tamil Discipline	62087504
September	Theory Assignment	Selected Texts : Novel & Short Story (Tamil) Social History of the workers in Grave yards Thaganam Novel in History of Tamil Novel Literature	B.A Prog Tamil Discipline	62087504
October	Theory Mid Term Test	Selected Texts : Novel & Short Story (Tamil) Plot of Thganam Novel Modern Short story and Thaganam Novel	B.A Prog Tamil Discipline	62087504
November		Selected Texts : Novel & Short Story (Tamil) Cultural Reflections of Society in Thaganam Novel	B.A Prog Tamil Discipline	62087504

SEMESTER WISE TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Kanwar Singh **Department: Sanskrit**

Semester: I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	SECTION 'A': SANJYA	B.A. 2ND YEAR (P)	MIL-A2 GRAMMAR AND TRANSLATION
		UNIT I: INTRODUCTION TO SANSKRIT POETICS	B.A. 2ND YEAR (H)	C-6 POETICS AND LITERARY CRITICISM
		UNIT I: SANGHYA PRAKARAN AND ACH SANDHI	B.A. 3RD YEAR (H)	C-12 SANSKRIT GRAMMAR
	Tutorials	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		
AUGUST	**Theory:**	SECTION 'A': SANDHI UNIT I	B.A. 2ND YEAR (P)	MIL-A2 GRAMMAR AND TRANSLATION
		UNIT II: FORMS OF KAVYA LITERATURE	B.A. 2ND YEAR (H)	C-6 POETICS AND LITERARY CRITICISM
		UNIT II: HAL AND VISARG SANDHI UNIT III: PRACTICE OF APPLICATIONS OF SANDHIS IN PRESCRIBED TEXTS LITERARY TEXTS	B.A. 3RD YEAR (H)	C-12 SANSKRIT GRAMMAR

	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

	Assignment :	ASSIGNMENTS WILL BE GIVEN REGARDING THE TOPICS.		
SEPTEMBER	**Theory:**	SECTION 'A': SANDHI UNIT II	B.A. 2ND YEAR (P)	MIL-A2 GRAMMAR AND TRANSLATION
		UNIT III:SABDA SAKTI (POWER OF WORD) UNIT IV: RASA-SUTRA	B.A. 2ND YEAR (H)	C-6 POETICS AND LITERARY CRITICISM
		UNIT IV: AVAYIYBHAV AND TATPURUS SAMAS	B.A. 3RD YEAR (H)	C-12 SANSKRIT GRAMMAR
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		
	Test	TESTS WILL BE TAKEN TIMELY.		
OCTOBER	**Theory:**	SECTION 'B': SAMASA UNIT I	B.A. 2ND YEAR (P)	MIL-A2 GRAMMAR AND TRANSLATION
		UNIT V: ALANKARA (FIGURES OF SPEECH)	B.A. 2ND YEAR (H)	C-6 POETICS AND LITERARY CRITICISM
		UNIT V: BAHUVRIHI AND DWANDVA SAMAS	B.A. 3RD YEAR (H)	C-12 SANSKRIT GRAMMAR

	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

NOVEMBER	**Theory:**	SECTION 'B': SAMASA UNIT II	B.A. 2ND YEAR (P)	MIL-A2 GRAMMAR AND TRANSLATION
		UNIT VI: CHANDASA (METRE)	B.A. 2ND YEAR (H)	C-6 POETICS AND LITERARY CRITICISM
		UNIT VI: KRIDANT PRATYA	B.A. 3RD YEAR (H)	C-12 SANSKRIT GRAMMAR
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

SEMESTER WISE TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty : Dr. Raj Kishor Arya **Department: Sanskrit**

Semester: I/III/V

Month		Topics	Course	Paper Code/Name
JULY 2019	**Theory**	SECTION-A Unit: I Indian Social Institutions: Nature and Concepts:	B.A (H) SKT 2nd Year	C-7 Indian Social Institutions and Polity (12131303)
		SECTION-A Unit: I Aesthetics (Saundaryastra), its nature and components	B.A.2nd YEAR GE	GE-5 Indian Aesthetics (12135904)
		Unit: IV Samsa Basic concepts of Samsa and types	B.A.2nd YEAR (P.)	MIL-A2 Grammar and Translation (52131417)
	Tutorials	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		
AUGUST 2019	**Theory:**	Unit: II Social Institutions and Dharmastra Literature:	B.A (H) SKT 2nd Year	C-7 Indian Social Institutions and Polity (12131303)
		SECTION-B AESTHETIC EXPERIENCE (RASA) AND ITS PROCESS	B.A.2nd YEAR GE	GE-5 Indian Aesthetics (12135904)
		Unit: IV Samsa Basic concepts of Samsa and types	B.A.2nd YEAR (P.)	MIL-A2 Grammar and Translation (52131417)
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

	Assignment:	ASSIGNMENTS WILL BE GIVEN REGARDING THE TOPICS		
SEPTEMBER 2019	**Theory:**	SECTION-B Unit: I Indian Polity: Origin and Development Unit: VI Important Thinkers on Indian Polity:	B.A (H) SKT 2nd Year	C-7 Indian Social Institutions and Polity (12131303)
		SECTION-C AESTHETIC ELEMENTS	B.A.2nd YEAR GE	GE-5 Indian Aesthetics (12135904)
		Unit: VI Composition	B.A.2nd YEAR (P.)	MIL-A2 Grammar and Translation (52131417)
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		
	Test	TESTS WILL BE TAKEN TIMELY.		
OCTOBER 2019	**Theory:**	Unit: IV Later Stages of Indian Polity (From Kauilya to Mahatma Gandhi).	B.A (H) SKT 2nd Year	C-7 Indian Social Institutions and Polity (12131303)
		SECTION-D PROMINENT THINKERS ON AESTHETICS	B.A.2nd YEAR GE	GE-5 Indian Aesthetics (12135904)
		Unit: VI Composition	B.A.2nd YEAR (P.)	MIL-A2 Grammar and Translation (52131417)
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

NOVEMBER 2019	**Theory:**	Unit: V Cardinal Theories and Thinkers of Indian Polity	B.A (H) SKT 2nd Year	C-7 Indian Social Institutions and Polity (12131303)
		SECTION-A AESTHETICS, ITS NATURE AND COMPONENTS	B.A.2nd YEAR GE	GE-5 Indian Aesthetics (12135904)
		Unit: VI Composition	B.A.2nd YEAR (P.)	MIL-A2 Grammar and Translation (52131417)
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

SEMESTER WISE TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Sunita Atal **Department: Sanskrit**

Semester: I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	SECTION-A INTRODUCTION OF AYURVEDA HISTORY OF AYURVEDA	B.A 3rd year(H) DSE-7	FUNDAMENTALS OF AYURVEDA
		SECTION-A AESTHETICS, ITS NATURE AND COMPONENTS	B.A.2nd YEAR GE	INDIAN AESTHETICS
	Tutorials	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

AUGUST	**Theory:**	INTRODUCTION OF AYURVEDA SECTION -A UNIT-2	B.A 3rd year(H) DSE-7	FUNDAMENTALS OF AYURVEDA
		SECTION-B AESTHETIC EXPERIENCE (RASA) AND ITS PROCESS	B.A.2nd YEAR GE	INDIAN AESTHETICS
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

	Assignment:	ASSIGNMENTS WILL BE GIVEN REGARDING THE TOPICS		
SEPTEMBER	**Theory:**	SECTION-B CARAKASAMHITA INTRODUCTION OF AYURVEDA	B.A 3rd year(H) DSE-7	FUNDAMENTALS OF AYURVEDA
		SECTION-C AESTHETIC ELEMENTS	B.A.2nd YEAR GE	INDIAN AESTHETICS
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		
	Test	TESTS WILL BE TAKEN TIMELY.		
OCTOBER	**Theory:**	SECTION-B SUTRA-STHANAM INTRODUCTION OF AYURVEDA	B.A 3rd year(H) DSE-7	FUNDAMENTALS OF AYURVEDA
		SECTION-D PROMINENT THINKERS ON AESTHETICS	B.A.2nd YEAR GE	INDIAN AESTHETICS
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

NOVEMBER	**Theory:**	SECTION-C TAITTIRIYOPANISAD INTRODUCTION OF AYURVEDA	B.A 3rd year(H) DSE-7	FUNDAMENTALS OF AYURVEDA
		SECTION-A AESTHETICS, ITS NATURE AND COMPONENTS	B.A.2nd YEAR GE	INDIAN AESTHETICS
	Tutorials:	TUTORIALS REGARDING THE TOPICS WILL BE TAKEN.		

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Geeta Jayaram Sodhi

Department: Sociology

Semester: I (July-December, 2019)

Month		Topic(s)	Course	Paper Code/Name
JULY	**Theory**	Thinking Sociologically	Core Course-01	Introduction to SociologyI
	Practical	NA	NA	NA
	Tutorial	Nature of the Sociological Perspective	Core Course-01	Introduction to SociologyI
AUGUST	**Theory**	1.Emergence of Sociology and Social Anthropology 2. Sociology and other Social Sciences	Core Course-01	Introduction to SociologyI
	Practical	NA	NA	NA
	Tutorial	Contributions to the Development of Sociology	Core Course-01	Introduction to SociologyI
SEPTEMBER	**Theory**	1.Sociology and other Social Sciences 2. Individual and Group	Core Course-01	Introduction to SociologyI

	Practical	NA	NA	NA
	Tutorial	Relationship between Sociology and Social Anthropology	Core Course-01	Introduction to SociologyI
	Assignment	What does it mean to think sociologically?	Core Course-01	Introduction to SociologyI
OCTOBER	**Theory**	1.Associations and Institutions 2. Culture and Society	Core Course-01	Introduction to SociologyI
	Practical	NA	NA	NA
	Tutorial	Culture and Society-Features and Content of Culture	Core Course-01	Introduction to SociologyI
	Mid-Semester Examination	Topics: 1.Sociological Perspective 2.Sociology and other Social Sciences	Core Course-01	Introduction to SociologyI
NOVEMBER	**Theory**	1.Social Change 2. Sociological Investigation	Core Course-01	Introduction to SociologyI
	Practical	NA	NA	NA
	Tutorial	Theories of Social Change	Core Course-01	Introduction to SociologyI

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Geeta Jayaram Sodhi
Department: Sociology
Semester: V (July-December, 2019)

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Interlinking Work and Industry	DSC 4	Sociology of Work
	Practical	NA	NA	NA
	Tutorial	Analysis of Work:Marx, Weber and Durkheim	DSC 4	Sociology of Work
AUGUST	**Theory**	1.Interlinking Work and Industry 2.Industrialism	DSC 4	Sociology of Work
	Practical	NA	NA	NA
	Tutorial	Industrialisation and Industrialism	DSC 4	Sociology of Work

SEPTEMBER	**Theory**	1.Post-Industrial Society 2. Information Society 3. Alienation	DSC 4	Sociology of Work
	Practical	NA	NA	NA
	Tutorial	A critical analysis of theory of Post-Industrialism	DSC 4	Sociology of Work
	Assignment	Critically examine the classical approaches to work.	DSC 4	Sociology of Work
OCTOBER	**Theory**	1.Gender dimension of Work 2. Unpaid Work and Forced Labour 3. Work in the Informal Sector	DSC 4	Sociology of Work
	Practical	NA	NA	NA
	Tutorial	Features of Work in the Informal Sector	DSC 4	Sociology of Work
	Mid-Semester Examination	Topics:1. Industrialism 2.Post-industrial Society	DSC 4	Sociology of Work

NOVEMBER	**Theory**	Risk,Hazard and Disaster	DSC 4	Sociology of Work
	Practical	NA	NA	NA
	Tutorial	Gender dimension of Work	DSC 4	Sociology of Work

SEMESTER WISE TEACHING PLAN
July- December, 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. ABHIJIT KUNDU

Department: Sociology

Semester: III (July-December, 2019)

Month		Topic(s)	Course	Paper Code/Name
JULY	**Theory**	Scope And Development of Political Sociology	HONOURS-III Sem	Core Course-05 POLITICAL SOCIOLOGY
	Practical	NA	NA	NA
	Tutorial	Context of Political Sociology	Same	Same
AUGUST	**Theory**	Development of Political Anthropology Concepts of Power and Authority	Same	Same
	Practical	NA	NA	NA
	Tutorial	Critical Review of Power and Legitimacy	Same	Same
SEPTEMBER	**Theory**	-State , Governance and Citizenship -Elites and Ruling Classes	Same	Same

	Practical	NA	NA	NA
	Tutorial	-State as an Idea -Historical development of Citizenship - Ruling Class and Elite	Same	Same
	Assignment	Discuss the scope and development of Political anthro and sociology	Same	Same
OCTOBER	**Theory**	State, Democracy and Totalitarianism	Same	Same
	Practical	NA	NA	NA
	Tutorial	-Types of Democracy - Totalitarianism -State and Civil Society	Same	Same
	Mid-Semester Examination	TOPIC : State , Democracy and Civil Society	Same	Same
NOVEMBER	**Theory**	Everyday State and Local Structures of Power	Same	Same
	Practical	NA	NA	NA
	Tutorial	Local Level Politics	Same	Same

SEMESTER WISE TEACHING PLAN
July-December 2018
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. ABHIJIT KUNDU

Department: Sociology

Semester: V (July-December, 2019)

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Materialist Conception of History	Honours V Sem	Core Course- 11/ Sociological Thinkers -I
	Practical	NA	NA	NA
	Tutorial	Biographical Sketch of Karl Marx	Same	Same
AUGUST	**Theory**	-Materialism and Dialectics -Capitalist Mode of Production	Same	Same
	Practical	NA	NA	NA
	Tutorial	-Base and Superstructure - Commodity and Surplus Value	Same	Same

SEPTEMBER	**Theory**	Max Weber- Methodology - Protestant Ethics and Capitalism	Same	Same
	Practical	NA	NA	NA
	Tutorial	-Social Action and Ideal Types.	Same	Same
	Assignment	Discuss the materialist interpretation of History	Same	Same
OCTOBER	**Theory**	Emile Durkheim and Positivism -Social Fact	Same	Same
	Practical	NA	NA	NA
	Tutorial	- Characteristics of Social Facts _ Suicide as Social Facts	Same	Same
	Mid-Semester Examination	_ Max Weber and Emile Dirkheim	Same	Same

NOVEMBER	**Theory**	Types of Suicide	Same	Same
	Practical	NA	NA	NA
	Tutorial	Individual and Society	Same	Same

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Padma Priyadarshini

Department: Sociology

Semester: V (July-December, 2019)

Month		Topic(s)	Course	Paper Code/Name
JULY	**Theory**	**1.The Logic of Social Research** A. Sociological Imagination	Core Course-12	Sociological Research Methods I
	Practical	NA	NA	NA
	Tutorial	How does the Sociological Imagination contribute to the understanding of our society? Ref: C. Wright Mills	Core Course-12	Sociological Research Methods I
AUGUST	**Theory**	B.The Problem Of Objectivity C. Reflexivity	Core Course-12	Sociological Research Methods I
	Practical	NA	NA	NA
	Tutorial	Why is there a problem of objectivity in the social sciences? Ref: Rules of Sociological Method. Durkheim.	Core Course-12	Sociological Research Methods I
SEPTEMBER	**Theory**	**2. Methodological Perspectives** A.Comparative Method	Core Course-12	Methods of Sociological Research I

	Practical	NA	NA	NA
	Tutorial	Reflexivity amounts to critical self introspection. Ref: Gouldner	Core Course-12	Methods of Sociological Research I
	Mid Sem Exam	Topics: Sociological Imagination, Objectivity and Reflexivity	Core Course-12	Methods of Sociological Research I
OCTOBER	**Theory**	B. Feminist Method **3. Modes of Enquiry** A. Theory and Research Ref: R.K. Merton	Core Course-12	Methods of Sociological Research I
	Practical	NA	NA	Methods of Sociological Research I
	Tutorial	The Comparative Method is a method par excellence. Ref: Radcliffe Brown Andre Beteille	Core Course-12	Methods of Sociological Research I
	Assignment	Research Project using both quantitative and qualitative techniques; primary sources of data collection.	Core Course-12	Methods of Sociological Research I
NOVEMBER	**Theory**	Analyzing Data: Quantitative and Qualitative Ref: Alan Bryman	Core Course-12	Methods of Sociological Research I
	Practical	NA	NA	NA
	Tutorial	Is there a distinct feminist method? Ref: Sandra harding	Core Course-12	Methods of Sociological Research I

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Padma Priyadarshini
Department: Sociology
Semester: V (July-December, 2019)

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	1.**Envisioning Environmental Sociology** Nature and Scope of Environmental Sociology	DSE - 03	Environmental Sociology
	Practical	**Movie Screened** "An Inconvenient Truth"	DSE 03	Environmental Sociology
	Tutorial	What are the fundamental debates of Environmental Sociology Ref: Michael Bell Hannigan	DSE-03	Environmental Sociology
AUGUST	**Theory**	B. Realist-Constructionist Debate **2. Approaches** A. Treadmill of Production B. Ecological Modernization	DSE 03	Environmental Sociology
	Practical	**Movie Screened**: "Chipko Movement as it stands today"	DSE 03	Environmental Sociology
	Tutorial	Realism and Constructionism do not represent two opposed strands of thought. Ref: Leahy Evanoff	DSE 03	Environmental Sociology

SEPTEMBER	**Theory**	C. Risk D. Eco Feminism and Feminist Environmentalism E. Political ecology	DSE 03	Environmental Sociology
	Practical	**Movie Screened:** "Narmada Bachao Andolan: Its social, economic and Environmental impact explained."	DSE 03	Environmental Sociology
	Tutorial	Relevance of approaches to the study of Environmental Sociology Ref: Schnaiberg and Gould, Mol and Spaargaren, Beck, Shiva and Agarwal, Robbins.	DSE 03	Environmental Sociology
	Mid Sem Exam	Topics: What is environmental sociology? Realism and Constructionism	DSE 03	Environmental Sociology
OCTOBER	**Theory**	**3. Environmental Movements in India** A.Chipko B. Narmada Ref: Guha Khagram	DSE 03	Environmental Sociology
	Practical	**Movie Screened:** 1."Seeds of Life" 2. "Should India have genetically modified crops?"	DSE 03	Environmental Sociology
	Tutorial	Can the Chipko Movt be designated as a woman's movement?	DSE 03	Environmental Sociology
	Assignment	Class Presentations and Viva Topics: Chipko, Narmada, Anti-mining, Seed.	DSE 03	

NOVEMBER	**Theory**	C. Anti-Mining and Seed Ref: Padel and Das Scoones	DSE 03	Environmental Sociology
	Practical	Movie Screened: 1."Battle ground Niyamgiri" 2. Resettlement and Rehabilitation: Problems and concerns	DSE 03	Environmental Sociology
	Tutorial	The success of the Narmada movement can be attributed to its transnational coalitions.	DSE 03	Environmental Sociology

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Nabanipa Bhattacharjee

Department: Sociology

Semester: I (July-December, 2019)

Month		Topic(s)	Course	Paper Code/Name
JULY	**Theory**	Introducing Sociology of India; Images and Ideas of India; pre-colonial image of India; colonial discourse	Core Course-02	Sociology of India I
	Practical	NA	NA	NA
	Tutorial	Colonial discourse	Core Course-02	Sociology of India I
AUGUST	**Theory**	Ideas of India I & II: Reading Gandhi and Ambedkar	Core Course-02	Sociology of India I
	Practical	NA	NA	NA
	Tutorial	Compare and contrast the ideas of Gandhi and Ambedkar	Core Course-02	Sociology of India I
SEPTEMBER	**Theory**	concept of caste and understanding the caste system; critique of caste; agrarian classes	Core Course-02	Sociology of India I

	Practical	NA	NA	NA
	Tutorial	features and critique of caste; agrarian structure	Core Course-02	Sociology of India I
	Assignment (10 Marks)	Discuss the views of Gandhi and Ambedkar on India	Core Course-02	Sociology of India I
OCTOBER	**Theory**	Village studies in India; profile and situation of Indian tribes; kinship system in India	Core Course-02	Sociology of India I
	Practical	NA	NA	NA
	Tutorial	Understanding the Indian village; contemporary issues and problems of Indian tribes; North and South Indian kinship	Core Course-02	Sociology of India I
	Mid-Semester Examination (10 Marks)	Topics: agrarian classes, caste, kinship, village	Core Course-02	Sociology of India I
NOVEMBER	**Theory**	Industry and labor; religion and society in India	Core Course-02	Sociology of India I
	Practical	NA	NA	NA
	Tutorial	Mapping the industrial working class; religious practices of Hindus, Sikhs and Muslims	Core Course-02	Sociology of India I

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Nabanipa Bhattacharjee

Department: Sociology

Semester: I (July-December, 2019)

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Interface of the social and the religious; understanding the religious sociologically	Core Course 06	Sociology of Religion
	Practical	NA	NA	NA
	Tutorial	Durkhemian understanding of social and religious; beliefs and practices	Core Course 06	Sociology of Religion
AUGUST	**Theory**	Sacred and profane in formulating the religious; asceticism and capitalist accumulation; theodicy and eschatology; introduction to church-state relations	Core Course 06	Sociology of Religion
	Practical	NA	NA	NA
	Tutorial	Australian totemism; religious ethic and capitalist spirit; suffering and redemption	Core Course 06	Sociology of Religion

SEPTEMBER	**Theory**	Judaism and human emancipation; individual, collective and the religious; understanding sacred, myth and ritual	Core Course 06	Sociology of Religion
	Practical	NA	NA	NA
	Tutorial	State, church, emancipation; Malinowski on solitude and religious experience; myth	Core Course 06	Sociology of Religion
	Assignment (10 Marks)	How does Durkheim construct the sociological understanding of the religious?	Core Course 06	Sociology of Religion
OCTOBER	**Theory**	Srinivas and Durkheim on rituals; time and space; religion and rationality; concept of prayer	Core Course 06	Sociology of Religion
	Practical	NA	NA	NA
	Tutorial	Ritual complex of Coorgs; time-space and the Nuer; Tambiah on religion and science	Core Course 06	Sociology of Religion
	Mid-Semester Examination (10 Marks)	Topics: Sacred and profane; religion and solitude; rituals, religious and economic life;	Core Course 06	Sociology of Religion

NOVEMBER	**Theory**	Maussian reading of prayer; craft of religious; body and the religious	Core Course 06	Sociology of Religion
	Practical	NA	NA	NA
	Tutorial	Practice of prayer; Ginzburg on craft; hands and dual symbolic classification	Core Course 06	Sociology of Religion

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
July-December 2019

Name of the Faculty: DR. URMI BHATTACHARYYA
Department: SOCIOLOGY

Semester: V

Course Details - B. A. (H): Discipline Specific Elective (*Urban Sociology*)

Month		Topic(s)	Course	Paper Code/Name
JULY	**Theory**	-Introducing Urban Sociology -The City in History	B. A. (H) DSE	Urban Sociology
	Practical	NA	NA	NA
	Tutorial	-Discussion and writing on concepts of community, city and neighborhood	B. A. (H) DSE	Urban Sociology
AUGUST	**Theory**	-Concepts: Urban, Urbanism and the city Cities and Capitalism -Urban theory and urban experience	B. A. (H) DSE	Urban Sociology
	Practical	NA	NA	NA
	Tutorial	-Assisting students on how to understand and write on the traditional approach to urbanism -How it changed with the development of capitalism	B. A. (H) DSE	Urban Sociology
SEPTEMBER	**Theory**	-Perspectives in Urban Sociology: City as Ecological, Political Economy, Network, City as Culture	B. A. (H) DSE	Urban Sociology

	Practical	NA	NA	NA
	Tutorial	-Identifying the basic principles underlying Chicago School and the human ecological approach -recognize the theoretical distinctions between the different perspectives Discussions centering writing the term assignment	B. A. (H) DSE	Urban Sociology
	Assignment	By reflecting on the social transformations brought about by the development of capitalism and the money economy, write an essay elaborating on the Marxist approach to understanding urbanism.	B. A. (H) DSE	Urban Sociology
OCTOBER	**Theory**	-Movements and Settlements: Migration and Community -Politics of Urban Space: Culture and Leisure	B. A. (H) DSE	Urban Sociology
	Practical	NA	NA	NA
	Tutorial	-Course readings-related discussions on the ethnographic cases emphasizing on migration in the Indian context; and on the concepts of culture and identity in the urban space	B. A. (H) DSE	Urban Sociology
	Mid-Semester Examination	Theme: Write a note on the principle features underlying urbanism as a way of life	B. A. (H) DSE	Urban Sociology
NOVEMBER	**Theory**	-Caste, Class, Gender and the Politics of Urban Space	B. A. (H) DSE	Urban Sociology

	Practical	NA	NA	NA
	Tutorial	-Looking at how metropolitan areas are affected by differences of class, caste and gender	B. A. (H) DSE	Urban Sociology

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
July-December 2019

Name of the Faculty: DR. URMI BHATTACHARYYA
Department: SOCIOLOGY
***Semester*: I**
***Course Details* : B. A. (Hons.)**
Generic Elective 01 - *Indian Society: Images and Realities*

Month		Topic(s)	Course	Paper Code/Name
JULY	**Theory**	-Course Introduction: Indian Society, ideas of civilization, perspectives, modernity, social institutions	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
	Practical	NA	NA	NA
	Tutorial	Guiding students to interpret the theoretical views and historical experiences	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
AUGUST	**Theory**	-Indian Civilization, -Approaches, anthropological and historical -Colonialism, Modernity and modern civilization	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
	Practical	NA	NA	NA

	Tutorial	Critically looking at concepts of Brahmanical Ideology and Regional Identities -Approaches to the Study of Indian Civilization -Cultural and Historical geography -The Shaping of the Civilization: Views of the Past -Cultural and Structural History: Nineteenth and twentieth centuries Guiding students on how to write the term assignment	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
SEPTEMBER	**Theory**	-Tracing the idea of the village from pre-colonial times to the present. -Town and Centres in the integration of Indian Civilization -Regions and their relation to the study of history and society	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities

	Practical	NA	NA	NA
	Tutorial	-Critically reading essays on the Village in Focus -Networks and Centres in the Integration of Indian Civilization -Regions Subjective and Objective: their Relation to the Study of Modern Indian History and Society	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
	Assignment	Write an essay on the continuity and transformations as witnessed in any particular social institution in Indian society/history by reviewing a text (as discussed with the course teacher)	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
OCTOBER	**Theory**	Social Insitutions: -Caste -Religion	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
	Practical	NA	NA	NA
	Tutorial	Discussion and writing on: Caste in India: -Caste and Cultivation, Debates, -Personhood, Rank -Popular Hinduism	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
	Mid-Semester Examination	Write a note on the Idea of the Indian Village	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
NOVEMBER	**Theory**	Social Institutions: Ethnicity -Family and Gender	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities
	Practical	NA	NA	NA
	Tutorial	-Basic Conflict between Religious Traditions -The Construction of Gender -Sylvia Vatuk's study of South Indian Muslims	B. A. (Hons.) Generic Elective 01	Indian Society: Images and Realities

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Antasa Vairagya

Department: Sociology

Semester: III(July-December, 2019) BA (Hons)

Month		Topic(s)	Course	Paper Code/Name
JULY	**Theory**	Gendering Sociology- Jackson and Scott	Core Course-07	Sociology of Gender
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA
AUGUST	**Theory**	Gendering Sociology- Liz Stanley, Marilyn Strathern; Gender, Sex, Sexuality- Sherry Ortner, Rubin Gayle, Newton Esther	Core Course-07	Sociology of Gender
	Practical	NA	NA	NA
	Tutorial	Politics of Sexuality; Nature Vs Culture debate in Gender	Core Course-07	Sociology of Gender
	Assignment	How does Anthropology accommodates Gender Studies	Core Course-07	Sociology of Gender

SEPTEMBER	**Theory**	Production of Masculinity and Femininity- Halberstam Judith, Alter Joseph, Patricia Uberoi; Class, Caste- Walby Sylvia	Core Course-07	Sociology of Gender
	Practical	NA	NA	NA
	Tutorial	Masculinity and Femininity	Core Course-07	Sociology of Gender
	Field Work	Gender Relations	Core Course-07	Sociology of Gender
OCTOBER	**Theory**	Caste, Class- Leela Dube, Sharmila Rege; Family, Work- Whitehead, Rajni Palriwal;, Power and Subordination- Candace West, susie	Core Course-07	Sociology of Gender
	Practical	NA	NA	NA
	Tutorial	Caste and Class; Family	Core Course-07	Sociology of Gender
	Mid-Semester Examination	Topics: caste, family	Core Course-07	Sociology of Gender

NOVEMBER	**Theory**	Resistance and Movements- Kandiyoti Deniz, Hill-Collins Patricia, Radha Kumar	Core Course-07	Sociology of Gender
	Practical	NA	NA	NA
	Tutorial	Feminist Movements	Core Course-07	Sociology of Gender

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Antasa Vairagya

Department: Sociology

Semester: III (July-December, 2019) BA (Hons)

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Unpacking Development- Henry Bernstein, Wolfgang Sachs, Rist Gilbert	Generic Elective 03	Rethinking Development
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA
AUGUST	**Theory**	Unpacking Development- J. Ferguson; Theorizing Development- David Harrison, Andre Frank, Michael Redclift	Generic Elective 03	Rethinking Development
	Practical	NA	NA	NA
	Tutorial	Modernization and Development	Generic Elective 03	Rethinking Development

SEPTEMBER	**Theory**	Theorizing Development- Nalini Vishwanathan, Kalyan Sanyal, Amartya Sen;	Generic Elective 03	Rethinking Development
	Practical	NA	NA	NA
	Tutorial	Environment and Development; Development as Freedom	Generic Elective 03	Rethinking Development
	Assignment	How is Development considered to be Freedom	Generic Elective 03	Rethinking Development
OCTOBER	**Theory**	Developmental Regimes in India- Pranab Bardhan, Partha Chatterjee; Issues in Developmental Praxis- T. Scudder	Generic Elective 03	Rethinking Development
	Practical	NA	NA	NA
	Tutorial	Political Economy of Development	Generic Elective 03	Rethinking Development
	Mid-Semester Examination	With reference to Pranab Bardhan and Partha Chatterji explain how there has been an influence of	Generic Elective 03	Rethinking Development

NOVEMBER	**Theory**	Issues in Developmental Praxis- Aradhana Sharma	Generic Elective 03	Rethinking Development
	Practical	NA	NA	NA
	Tutorial	Gender and Development	Generic Elective 03	Rethinking Development

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Nupurnima Yadav

Department: Sociology

Semester: Vth B.A Program (August-December, 2019)

Paper: Generic Elective 01 Polity and Society in India

Month		Topics	Course	Paper Code/Name
AUGUST	**Theory**	The political history of Independent India. State and democratic problem	Generic elective 01	Polity and Society in India
	Practical	NA	NA	NA
	Tutorial	Social character of Indian State	Generic elective 01	Polity and Society in India

SEPTEMBER	**Theory**	Political Economy, Para Political Systems Indian Nationalism And Caste based politics in India	Generic elective 01	Polity and Society in India
	Practical	NA	NA	NA
	Tutorial	Idea of sub-nationalism	Generic elective 01	Polity and Society in India
	Assignment (10 Marks)	Discuss the social character of Indian state through its political history.		
OCTOBER	**Theory**	Party system and political participation	Generic elective 01	Polity and Society in India
	Practical	NA	NA	NA
	Tutorial	Vernacularization of politics in India	Generic elective 01	Polity and Society in India
	Mid-Semester Examination (10 Marks)			

NOVEMBER	**Theory**	Protest and Resistance in Indian politics	Generic elective 01	Polity and Society in India
	Practical	NA	NA	NA
	Tutorial	Mobilizations at the local level.	Generic elective 01	Polity and Society in India

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Nupurnima Yadav

Department: Sociology

Semester: 5th B.A Prog. (August- December, 2019)

Paper: Discipline Specific Elective 01 Religion and Society

Month		Topics	Course	Paper Code/Name
AUGUST	**Theory**	Understanding Religion Explanation of Sociology of Religion: Meaning and Scope	DSE 01	Religion and Society
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEPTEMBER	**Theory**	Introduction of the concepts of Sacred and Profane Religion and Rationalization	DSE 01	Religion and Society
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA
	Assignment (10 Marks)			
OCTOBER	**Theory**	Explain dominant tenets of Hinduism. The advent of Islam in India Understanding Christianity through Protestant Ethics and spirit of capitalism	DSE 01	Religion and Society
	Practical	NA	NA	NA
	Tutorial	NA	NA	N A
	Mid-Semester Exam (10 Marks)			

NOVEMBER	**Theory**	Discussing the emergence of Sikhism Buddhism in India	DSE 01	Religion and Society
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Nupurnima Yadav

Department: Sociology

Semester: 5th B.A Prog. (August- December, 2019)

Paper: SEC 03 Society through the Visual

Month		Topics	Course	Paper Code/Name
AUGUST	**Theory**	Introduction to Sociological understanding of Visual -Visual Anthropology -Visual Sociology	SEC 03	Society through the Visual
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEPTEMBER	**Theory**	Reflexivity Film Making as an ethnographic research	SEC 03	Society through the Visual
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA
	<u>Assignment (10 Marks)</u>			
OCTOBER	**Theory**	New techniques of observations and research Hypermedia	SEC 03	Society through the visual
	Practical	NA	NA	NA
	Tutorial	NA	NA	N A
	<u>Mid-Semester Project (10 Marks)</u> **<u>Presentation (10 Marks)</u>**			

NOVEMBER	**Theory**	Qualitative research and positioning women researchers in visual anthropology	SEC 03	Society through the visual
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEMESTER WISE TEACHING PLAN
July-December 2019
SRI VENKATESWARA COLLEGE

Name of the Faculty: Nupurnima Yadav

Department: Sociology

Semester: I stB.A Prog.(August- December, 2019)

Paper: Core Course I

Month		Topics	Course	Paper Code/Name
AUGUST	**Theory**	1. 1. Nature and Scope of Sociology 2. History of Sociology	Core Course 01	Introduction to Sociology
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEPTEMBER	**Theory**	Relationship of Sociology with other Social Sciences: 1Anthropology 2 Psychology 3 History	Core Course 1	Introduction to Sociology
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA
	Assignment (10 Marks)			
OCTOBER	**Theory**			
	Practical	NA	NA	NA
	Tutorial	NA	NA	N A
	Mid-Semester Exam (10 Marks)			

NOVEMBER	**Theory**			
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEMESTER WISE TEACHING PLAN
July-December, 2020
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. Nupurnima Yadav

Department: Sociology

Semester: 5th B.A Prog. (July-December, 2020)

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Introduction to Sociological understanding of Visual	SEC 03	Society through the Visual
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA
AUGUST	**Theory**	Visual Anthropology Visual Sociology	SEC 03	Society through the Visual
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEPTEMBER	**Theory**	Reflexivity Film Making as an ethnographic research	SEC 03	Society through the Visual
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA
	<u>Assignment (10 Marks)</u>			
OCTOBER	**Theory**	New techniques of observations and research Hypermedia	SEC 03	Society through the visual
	Practical	NA	NA	NA
	Tutorial	Topic/Themes to be decided by the students.	NA	N A
	<u>Mid-Semester Project (10 Marks)</u> **<u>Presentation (10 Marks)</u>**			

NOVEMBER	**Theory**			
	Practical	NA	NA	NA
	Tutorial	NA	NA	NA

SEMESTER WISE TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Rajbir Kaur

Department: History

Semester: III

Month		Topics	Course	Paper Code/ Name
JULY	**Theory:**	I. Studying Early Medieval India (a) Dynamic and divergent topographies (b) Sources: texts, inscriptions, coins	B.A. (Hons.) IInd Year	Core - History of India-III (c.750-1200)
		I. Foundation, expansion and consolidation of the Sultanates of Delhi c.13th to 15th Century: Expansion; iqta system; administrative reforms; nobility	B.A. (Prog.) IInd Year	Core - History of India, c. 1200-1700
	Tutorials:	Introducing the course and its themes.		
		Discussion		
AUGUST	**Theory:**	I. Studying Early Medieval India (c) Debates on the early medieval II. Political Structures and Processes (a) Evolution of political structures: Rajput polities; Chola State; Odisha (b) Symbols of political power: Brahmans and temples; scared spaces and conflicts; courtly c cultures (c) Issue of 'Foreign and Indian' : Arabs and Ghaznavaids in the north-west, Cholas in Southeast Asia	B.A. (Hons.) IInd Year	Core - History of India-III (c.750-1200)

	Tutorials:	III. Foundation, expansion and consolidation of the Mughal state, c. 16th to 17th century: expansion and consolidation; Rajputs; Mansabdari and Jagirdari; imperial ideology: assessing Aurangzeb VII. Economy and integrated patterns of exchange: rural and urban linkages; commercial practices (usury and banking); maritime trade and non-agrarian production	B.A. (Prog.) IInd Year	Core - History of India, c. 1200-1700
		Discussion with the tutorial groups on the topics already taken up in the lectures		
		Interaction and Queries		
SEPTEMBER	**Theory:**	III. Social and economic processes (a) Agricultural expansion; forest-dwellers, peasants and landlords (b) Expansion of *varna-jati* order and brahmanization (c) Forms of exchange; inter-regional and maritime trade (d) Processes of Urbanization	B.A. (Hons.) IInd Year	Core - History of India-III (c.750-1200)
		II. Regional political formations: Gujarat and Vijayanagara IV. 17th century transitions: Marathas; Sikhs	B.A. (Prog.) IInd Year	Core - History of India, c. 1200-1700
	Tutorials:	Discussion with regard to specific readings given for study		
	Assignment:	What are the major issues and arguments given by historians in recent debates about characterizing early medieval India?	B.A. (Hons.) IInd Year	Core - History of India-III (c.750-1200)
		1. Describe the relation between the sultan and the nobility in Sultanate period. 2. Critically analyze the evolution of Iqta system during the Delhi Sultanate. 3. Describe the role played by Sufism in the history of Delhi Sultanate. 4. Outline the evolution of Qutub Complex during the sultanate period.	B.A. (Prog.) IInd Year	Core - History of India, c. 1200-1700

OCTOBER	**Theory:**	IV. Religious, literary and visual cultures (a) Bhakti: Alvars and Nayanars (b) Puranic Hinduism; Tantra; Buddhism and Jainism	B.A. (Hons.) IInd Year	Core - History of India-III (c.750-1200)
		V. Art and architecture in medieval India: Qutub complex, Vijayanagara (Hampi);Fatepur Sikri; Mughal miniature painting	B.A. (Prog.) IInd Year	Core - History of India, c. 1200-1700
	Tutorials:	Discussion group for Hindi medium students		
	<u>Mid Term Test:</u>	Internal Class Test held on 14th October 2019	B.A. (Hons.) IInd Year	Core - History of India-III (c.750-1200)
		Internal Class Test held on 15th October 2019	B.A. (Prog.) IInd Year	Core - History of India, c. 1200-1700
NOVEMBER	**Theory:**	IV. Religious, literary and visual cultures (c) Sanskrit and regional languages: interactions (d) Art and architecture: temples - regional styles	B.A. (Hons.) IInd Year	Core - History of India-III (c.750-1200)
		VI. Society, culture and religion : Bhakti – Kabir and Mira Bai; Sufism – Nizamuddin Auliya; Sufism in popular literature from the Deccan: *Chakki-Nama* and *Charkha-Nama*	B.A. (Prog.) IInd Year	Core - History of India, c. 1200-1700
	Tutorials:	Revision of the courses		
		Discussion on previous year's question papers		

SEMESTER WISE TEACHING PLAN **SRI VENKATESWARA COLLEGE**

July-November, 2019

Name of the Faculty: Dr. NINGMUANCHING

Department: HISTORY

Semester: I and V

Month		**Topics**	**Course**	**Paper Code/Name**
JULY	**Theory:**	I. Evolution of humankind and Paleolithic cultures (a) Environmental context of human evolution	B.A. (Honours) HISTORY	12311104 Social Formations and Cultural Patterns of the Ancient World(NC) Admission from 2016
		Understanding Gender and Patriarchy	B.A. (Prog) Generic Elective	62315515/ Women in Indian History
	Practicals:			
	Tutorials:	Discussion on selected text		
AUGUST	**Theory:**	(b) Biological Evolution of Hominins		

		(c)Social and Cultural Adaptations: mobility and migration; development of lithic and other technologies; changes in the hunting gathering economy; social organisation; art and graves		
		II. Understanding the Mesolithic (a)Mesolithic as a stage in prehistory		
		Historiography: Women's History in India Women in Ancient India: Brahmanical Patriarchy in India, Women and Property		
	Practicals:			
	Tutorials:	Discussions on topic I, written assignment		
SEPTEMBER	**Theory:**	III. The Neolithic (a)Debationg the origins of food production, climate change, population pressure;ecological choices, cognitive reorientations (b)features of the Neolithic based on sites…; nature and size of settlements;toolkits,artifacts and pottery; family and household		
		(c)features of social complexity in late Neolithic communities; ceremonial sites and structures		
		Women and Work:Voices from Tamilakam Women in Medieval India: the harem and the household, Imperial Women: Razia		

	Practicals:			
		Questions on topics covered, Active reading		
	Tutorials:			
	Assignment	Evolution of Hominins during the Pleistocene epoch		
		Development of Women's property Rights in Ancient India		
OCTOBER	**Theory**	IV(b)Ecological context of early civilizations (c)Aspects of social complexity:class, gender and economic specialization (d) Forms of kingship, religion and state V. Nomadic Pastoralism-(a)conceptualizing nomadic pastoralism		
		Women and literary activities in Medieval India Women in Modern India: Social Reforms and Women, Women and Indian		
	Practicals:			
	Tutorials:			
	Mid Term Test	Questions from Topic II,III,IV		

		Test on Mughal Domesticity		
NOVEMBER	**Theory:**	V(b) The emergence of specialized pastoral economy in West Asia and its relationship to sedentary farming, third and second millennium BCE (c) Socia-political interactions between nomadic pastoralists and Urban state societies in west Asia, third and second millenium BCE		
		IV. The Advent of Iron –its origins and implications		
		Women and Partition		
	Practicals:			
	Tutorials:	Discussion		

SEMESTER WISE TEACHING PLAN **SRI VENKATESWARA COLLEGE**

July-November, 2019

Name of the Faculty: Dr. NINGMUANCHING

Department: HISTORY

Semester: I and V

Month		**Topics**	**Course**	**Paper Code/Name**
JULY	**Theory:**	I. Evolution of humankind and Paleolithic cultures (a) Environmental context of human evolution	B.A. (Honours) HISTORY	12311104 Social Formations and Cultural Patterns of the Ancient World(NC) Admission from 2016
		Understanding Gender and Patriarchy	B.A. (Prog) Generic Elective	62315515/ Women in Indian History
	Practicals:			
	Tutorials:	Discussion on selected text		
AUGUST	**Theory:**	(b) Biological Evolution of Hominins		

		(c)Social and Cultural Adaptations: mobility and migration; development of lithic and other technologies; changes in the hunting gathering economy; social organisation; art and graves		
		II. Understanding the Mesolithic (a)Mesolithic as a stage in prehistory		
		Historiography: Women's History in India Women in Ancient India: Brahmanical Patriarchy in India, Women and Property		
	Practicals:			
	Tutorials:	Discussions on topic I, written assignment		
SEPTEMBER	**Theory:**	III. The Neolithic (a)Debationg the origins of food production, climate change, population pressure;ecological choices, cognitive reorientations (b)features of the Neolithic based on sites…; nature and size of settlements;toolkits,artifacts and pottery; family and household		
		(c)features of social complexity in late Neolithic communities; ceremonial sites and structures		
		Women and Work:Voices from Tamilakam Women in Medieval India: the harem and the household, Imperial Women: Razia		

	Practicals:			
		Questions on topics covered, Active reading		
	Tutorials:			
	Assignment	Evolution of Hominins during the Pleistocene epoch		
		Development of Women's property Rights in Ancient India		
OCTOBER	**Theory**	IV(b)Ecological context of early civilizations (c)Aspects of social complexity:class, gender and economic specialization (d) Forms of kingship, religion and state V. Nomadic Pastoralism-(a)conceptualizing nomadic pastoralism		
		Women and literary activities in Medieval India Women in Modern India: Social Reforms and Women, Women and Indian		
	Practicals:			
	Tutorials:			
	Mid Term Test	Questions from Topic II,III,IV		

		Test on Mughal Domesticity		
NOVEMBER	**Theory:**	V(b) The emergence of specialized pastoral economy in West Asia and its relationship to sedentary farming, third and second millennium BCE (c) Socia-political interactions between nomadic pastoralists and Urban state societies in west Asia, third and second millenium BCE		
		IV. The Advent of Iron –its origins and implications		
		Women and Partition		
	Practicals:			
	Tutorials:	Discussion		

SEMESTER WISE
TEACHING PLAN
SRI VENKATESWARA
COLLEGE

July-November, 2019-20

Name of the Faculty: NUTI NAMITA

Department: HISTORY

Semester: ODD Semester

Month		Topics	Course	Paper Code/Name
JULY	Theory:	Course Content: Unit I: Between Myth and History -- Delhi's Early Pasts: Indraprastha, Lalkot (15 DAYS) Unit II: From settlements to cityscape – Understanding the Many cities of Delhi.	B.A(HONS.) FIRST YEAR	GE-1 DELHI THROUGH THE AGES: THE MAKING OF ITS EARLY MODERN HISTORY
		China and the Great Divergence. Imperialism and China during the 19th century Canton system,	B.A(HONS) THIRD YEAR HISTORY	DSE-IX, PAPER-9 HISTORY OF MODERN CHINA (1840-1960)
	Practicals:			
	Tutorials:	TUTORIALS/ QUESTION /ANSWER SESSIONS- REVISION		
		TUTORIALS/ QUESTION /ANSWER SESSIONS- REVISION		
AUGUST	Theory:	III: Delhi's 13th and 14th Century settlements Case study of any two: 1) Dehli-ikuhna's masjid-ijami '(old Delhi/Mehrauli),	B.A(HONS.) FIRST YEAR	GE-1 DELHI THROUGH THE AGES: THE MAKING OF ITS EARLY MODERN HISTORY
		Opium Wars. Taiping rebellion, Reform Movement; Self -Strengthening movement.; Reform Movement of 1898	B.A(HONS) THIRD YEAR HISTORY	DSE-IX, PAPER-9 HISTORY OF MODERN CHINA (1840-1960)
	Practicals:			

	Tutorials:	TUTORIALS/ QUESTION ANSWER SESSIONS/ QUIZZES		
		TUTORIALS/ QUESTION ANSWER SESSIONS/ QUIZZES		
SEPTEMBER	Theory:	Capital cities of Delhi 1. Siri, 2. Ghiyaspur-Kilukhri, .3 Tughluqabad, 4. Jahanpanah, and 5. Firuzabad	B.A(HONS.) FIRST YEAR	GE-1 DELHI THROUGH THE AGES: THE MAKING OF ITS EARLY MODERN HISTORY
		Boxer movement; Revolution of 1911 Sun-Yat-Sen and his ideology; Warlordism May Fourth Movement	B.A(HONS) THIRD YEAR HISTORY	DSE-IX, PAPER-9 HISTORY OF MODERN CHINA (1840-1960)
	Practicals:			
	Tutorials:	QUESTION/ ANSWER SESSIONS. REMEDIAL CLASSES FOR HINDI MEDIUM STUDENTS		
		QUESTION/ ANSWER SESSIONS. REMEDIAL CLASSES FOR HINDI MEDIUM STUDENTS		
	Assignment	ASSIGNMENT WAS GIVEN TO STUDENTS. TOPIC: DESCRIBE ANY TWO CITIES OF DELHI IN THE 13^{TH} AND 14^{TH} CENTURIES.	B.A(HONS.) FIRST YEAR	GE-1 DELHI THROUGH THE AGES: THE MAKING OF ITS EARLY MODERN HISTORY
		Assignment was given to students on the causes and historiography of Opium Wars in China	B.A(HONS) THIRD YEAR HISTORY	DSE-IX, PAPER-9 HISTORY OF MODERN CHINA (1840-1960)
OCTOBER	Theory	Unit IV: Shajahanabad: Qila Mubarak (Red Fort) as a site of power and the morphology of the city	B.A(HONS.) FIRST YEAR	GE-1 DELHI THROUGH THE AGES: THE MAKING OF ITS EARLY MODERN HISTORY
		Nationalism and Communism; 1921-1927, Formation of CCP, Re-organization of the KMT, First United Front; 1928-1949- Kiangsi Soviet, Peasant Nationalism, Communist Victory	B.A(HONS) THIRD YEAR HISTORY	DSE-IX, PAPER-9 HISTORY OF MODERN CHINA (1840-1960)
	Practicals:			

	Tutorials:	QUESTION/ ANSWER SESSIONS **VISIT TO THE RED FORT OF THE STUDENTS WAS ORGANISED BY THE TEACHER**		
		QUESTION/ ANSWER SESSIONS		
	Mid Term Test	NA		
		NA		
NOVEMBER	Theory:	Unit V: 18th century Delhi: political up-heaval and social empowerment – compli-cated understandings of 'decline'.	B.A(HONS.) FIRST YEAR	GE-1 DELHI THROUGH THE AGES: THE MAKING OF ITS EARLY MODERN HISTORY
		Building Socialism, China in the World; Relations with Socialist Countries/ Third world, Non-Alignment Great Leap Forward	B.A(HONS) THIRD YEAR HISTORY	DSE-IX, PAPER-9 HISTORY OF MODERN CHINA (1840-1960)
	Practicals:			
	Tutorials:	TUTORIALS/ REVISION		
		TUTORIALS/ REVISION		

SEMESTER WISE TEACHING PLAN (2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Rajni Chandiwal **Department: History**

Semester : I/III/V

Month		Topics	Course	Paper Code/Name
July	**Theory** **1.** **2.**	• Transition From Feudalism to Capitalism –Problems and Theory • Interpreting Ancient India Survey of Sources.	Core Course-VI CC-1	Rise of Modern West-I History of India from Earliest Times to upto C.-300 CE
	Practicals	NA	NA	
	Tutorials	Discussion on the theme Discussion on the theme		
August	**Theory:** **1.** **2.**	• Early Colonial Expansion-Motives Beginning of the Era of Expansion, • Mining and Plantation, African Slaves. • Renaissance-in Italy its Social Roots, Humanism and Its Spread in Europe, Art • Survey of Paleolithic , Mesolithic and Neolithic Cultures-Rock Art. • Harappan Civilization-Origin and Extent , urban Features, Town Planning, Economy , Society, Religion, Decline. • Chalcolithic Cultures. Vedic Culture-Polity, Economy, • Society and Religion , • Beginning of the Iron Age		

	Practicals:	NA		
	Tutorials:	Discussion on the theme Screening selected documentary and visual Art		

	Assignment :	Feudalism Debate Harappan Theme		
September	**Theory: 1** **2**	• Origin Course and the Results of European Reformation in 16th Century. • Economic Developments of the 16th Century • Emergence of Mahajanpadas, Rajyas , Gana Sanghas, Magadhan Expansion , Buddhism Jainism Doctrines		
	Practicals:	NA		
	Tutorials:	Discussion on the themes taught in the class		
	Test	Taken on the themes taught in the class till Sept.		
October	**Theory: 1** **2**	• Shift of the Economic Balance From the Mediterranean to the Atlantic, Commercial Revolution. • Mauryan Empire-State and Administration , Economy , Ashoka's Dhamma, Art and Architecture. Post Maurayan Age, satvahans, and Kushanas, Polity, Economy ,Society Art,.		

	Practicals:	NA		
	Tutorials:	Questions and Answer Sessions with presentations		

November	**Theory:** **1** **2**	• Emergence of the European State Systems with the two case Studies Spain and England . • Sangam Age, Polity Economy and society		
	Practicals:	NA		
	Tutorials:	Revisons		

SEMESTER WISE
TEACHING PLAN
SRI VENKATESWARA
COLLEGE

July-November, 2019

Name of the Faculty:Vandana Joshi **Department:History**

Semester: V

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	1. The French Revolution [a] Crisis of the Ancien Regime [b] Intellectual currents 2.	BA HONS Core Course XI History	Modern European History
		I. Key concepts and historical background [a] The idea of the early Modern; perspectives on culture in history 1. [b] An overview of the classical and medieval legacy	BA Programme DSE	Cultural Transformation in Early Modern Europe
	Practicals:			
	Tutorials:	The French Revolution	BA HONS	Modern European History
		The idea of Early Modern Europe	BAP /DSE	Cultural Transformation in Early Modern Europe
AUGUST	**Theory:**	[c] Social classes and emerging gender relations [d] Phases of the French Revolution 1789-99 [e] Art and culture of the French Revolution [f] Napoleonic consolidation –reform and empire	BA HONS Core Course	Modern European History
		II. The Renaissance [a] Society and politics in Italian city states [b] Humanism in art and literature [c] Developments in science and philosophy	BAP/DSE	Cultural Transformation in Early Modern Europe

	Practicals:			
	Tutorials:	Presentations and assignments		
		Presentations and assignments		
SEPTEMBER	**Theory:**	II. Restoration and revolution: c 1815-1848 [a] Forces of conservatism and restoration of old hierarchies [b] Social, political and intellectual currents [c] Revolutionary and radical movements 1830-1848 III. Capitalist industrialization and social and economic transformation (Late 18th century to AD 1914) [a] Process of capitalist development in industry and agriculture: case studies of Britain, France, the German States and Russia.	BA HONS	Modern European History
		[d] Renaissance beyond Italy III. Upheaval in religion [a] The Papacy and its critics [b] The spread of Protestant sects in Northern Europe	BAP/DSE	Cultural Transformation in Early Modern Europe
	Practicals:			
	Tutorials:	Presentations and assignments		
		Presentations and assignments		

	Assignment			
OCTOBER	**Theory**	[b] Evolution and differentiation of social classes: bourgeoisie, proletariat, landowning classes and peasantry. [c] Changing trends in demography and urban patterns [d] Family, gender and process of industrialization IV Liberal democracy, working class movements and Socialism in the 19th and 20th Centuries: 39 [a] The struggle for parliamentary democracy and civil liberties in Britain: popular movements – chartists and suffragettes	BA HONS	Modern European History
		[c] Counter Reformation and religious strife [d] The economic and cultural impact of the Reformations	BAP/DSE	Cultural Transformation in Early Modern Europe
	Practicals:			
	Tutorials:	Presentations and class test		
		Presentations and assignments		
	Mid Term Test			

NOVEMBER	**Theory:**	[b] The making of democratic and constitutional rights [c] Forms of protest: food riots in France and England in early nineteenth century, Luddism; trends in labour movements: Britain, France and Germany [d] Early socialist thought, Marxian Socialism and the First and Second International.	BA HONS	Modern European History
		IV. The Conquest of the New World: material, social and cultural aspects	BAP	Cultural Transformation in Early Modern Europe
	Practicals:			
	Tutorials:	Presentations and assignments		
		Presentations and assignments		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr M PADMA SURESH

Department: ECONOMICS **Semester : V / 2019-20**

Months		Topics	Course	Paper Code/ Name
JULY	**Theory**	**Issues in Growth, Development and Sustainability** Todaro and Smith, Ch 1, 2; Dreze and Sen Chs. 2 & 3. **Factors in Development** Capital formation (physical and human); technology; institutions. Todaro and Smith, Ch 1, 2, Kapila (2015), Ch 6.	BA(Hons)	Economic Development and Policy in India-I 62277503
	Tutorials	Discussion, Practice writing and online resources e.g. World Bank for developing and developed countries comparison.		
AUGUST	**Theory:**	**Factors in Development** Capital formation (physical and human); technology; institutions. Todaro and Smith, Ch 1, 2, **Population and Economic Development** Demographic trends; urbanization. Kapila (2015), Ch 6, 7*.		
	Tutorials:	Discussion, Population pyramid etc.		

SEPTEMBER	**Theory:**	**Employment** Occupational structure in the organized and unorganized sectors; open, under and disguised unemployment (rural and urban); employment schemes and their impact. Kapila (2015), Ch 19. Internal Test-1		
	Tutorials:	Writing assignment, discussion.		
OCTOBER	**Theory:**	**Indian Development Experience** Critical evaluation of growth, inequality, poverty and competitiveness, pre and post reform era; Kapila (2015), Ch 3, 15. Savings and investment; Kapila (2015), Ch 11, 12. optional and advanced reading material.		
	Tutorials:	Discussion of past papers. Revision		
NOVEMBER	**Theory**	Topic 5 Contd. Mobilisation of internal and external finance; Kapila (2009), Ch 8. Monetary and fiscal policies; Kapila (2015), Ch 5. Centre-state financial relations; 14th Finance Commission Report* M. Govinda Rao (2005), Y.V. Reddy (2015), Sections I to 9.		
	Tutorials	Revision Internal Test-2		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Aruna Rao

Department: Economics **Semester : I**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Unit 1	B.A (H) Economics	Introductory Microeconomics
	Practicals			
	Tutorials	Assignment on unit 1		
AUGUST	**Theory:**	Unit 1 & 2	B.A (H) Economics	Introductory Microeconomics
	Practicals:			
	Tutorials:	Assignment on unit 1 & 2		
SEPETEMBER	**Theory:**	Unit 2 & 3	B.A (H) Economics	Introductory Microeconomics
	Practicals:			

	Tutorials:	Assignment on unit2 & 3		
OCTOBER	**Theory:**	Unit 3 & 4	B.A (H) Economics	Introductory Microeconomics
	Practicals:			
	Tutorials:	Assignment on unit 3 & 4		
	Test :	Internal Assessment 1		
NOVEMBER	**Theory:**	Unit 4	B.A (H) Economics	Introductory Microeconomics
	Practicals:			
	Tutorials:	Assignment on unit 4		
	Test :	Internal Assessment 2		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Aruna Rao

Department: Economics **Semester : I**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Unit 1	B.A (Prog)	Principles of Microeconomics
	Practicals			
	Tutorials	Assignment on unit 1		
AUGUST	**Theory:**	Unit 1 & 2	B.A (Prog)	Principles of Microeconomics
	Practicals:			
	Tutorials:	Assignment on unit 1 & 2		
SEPETEMBER	**Theory:**	Unit 2 & 3	B.A (Prog)	Principles of Microeconomics
	Practicals:			
	Tutorials:	Assignment on unit2 & 3		

OCTOBER	**Theory:**	Unit 3 & 4	B.A (Prog)	Principles of Microeconomics
	Practicals:			
	Tutorials:	Assignment on unit 3 & 4		
	Test :	Internal Assessment 1		
NOVEMBER	**Theory:**	Unit 4	B.A (Prog)	Principles of Microeconomics
	Practicals:			
	Tutorials:	Assignment on unit 4		
	Test :	Internal Assessment 2		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Dr. M PADMA SURESH

Department: ECONOMICS **Semester : V /2019-20**

MONTH		TOPICS	COURSE	PAPER CODE/NAME
JULY	**Theory**	Matrix approach to k-variable regression model	BA(Hons) Economics	12277502-DSE Applied Econometrics
	Tutorials	Exercises from Basic Econometrics on matrix approach, 5th International ed.		
AUGUST	**Theory**	Matrix approach, Stages in empirical econometric research, Regression Diagnostics- Multicollinearity, Heteroscedasticity, Autocorrealation. Functional forms and Dummy variables. Use of STATA/GRETL in econometrics by using Econometrics By Example(EBE)		
	Tutorials	Review and revision of essentials of econometrics using EBE, question papers-problem solving		
SEPTEMBER	**Theory**	Model specification-Ramsey RESET Test, LM Test, DW test. Measurement errors, AIC, SIC, Outliers, Leverage etc. Non-normal errors. STATA/GRETL exercises from EBE for specification and diagnostics		

	Tutorials	Conduct of first internal test covering Matrix approach, Review chapters and Model specification. Exercises from Basic econometrics, Gujarati and Wooldridge. Question papers-problem solving. Discussion of Project topic and submission of proposals		
OCTOBER	**Theory**	Advanced topics in regression analysis-Dynamic econometric models, Panel data and Instrumental Variable estimation, STATA/GRETL exercises using EBE		
	Tutorials	Exercises from Basic econometrics, Gujarati and Wooldridge. Question papers-problem solving		
NOVEMBER	**Theory**	Simultaneous equation models		
	Tutorials	Conduct of practice internal test covering Advanced topics in regression analysis. Submission and evaluation of projects.		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: KRISHNAKUMAR S (2019-20)

Department: ECONOMICS **Semester : I/III/V**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	What is macroeconomics? Macroeconomic Issues in an economy	BA Programme Sem III	Principles of Macroeconomics -I
	Practicals			
	Tutorials			
AUGUST	**Theory:**	Concepts of GDP and National Income; measurement of national income and related aggregates; nominal and real GDP; limitations of the GDP concept Actual and potential GDP; aggregate expenditure; consumption function; investment function; equilibrium GDP; concepts of MPS, MPC; autonomous expenditure; concepts of multiplier	BA Programme Sem III	Principles of Macroeconomics -I
	Practicals:			
	Tutorials:	Numericals on the basis of the simple Keynesian model	BA Programme Sem III	Principles of Macroeconomics -I
SEPTEMBER	**Theory:**	Fiscal policy; impact of changes in government expenditure and taxes; net exports and equilibrium national income.	BA Programme Sem III	Principles of Macroeconomics -I

	Practicals:			
	Tutorials:	Discussion of Keynes and Great Depression, recession in the current world economy . Numericals on the thiree sector model	BA Programme Sem III	Principles of Macroeconomics-I
	<u>Assignment :</u>	Detailed assignment on Fiscal Policy and Keynesian model. Balanced budget multiplier.(TEST)	BA Programme Sem III	Principles of Macroeconomics-I
OCTOBER	**Theory:**	Concept of money in a modern economy; monetary aggregates; demand for money; quantity theory of money; liquidity preference and rate of interest; money supply and credit creation;	BA Programme Sem III	Principles of Macroeconomics-I
	Practicals:			
	Tutorials:	Exploring RBI data relating to money supply and multiplier. Discussion on the basis of the lecture by Prof Anat Admati on The Banker's New Clothes	BA Programme Sem III	Principles of Macroeconomics-I
	<u>Test</u>	Test on the basis of the course in two sets		
NOVEMBER	**Theory:**	Monetary policy. Contemporary global economy and Indian economy. How do we make sense with the course which we did?	BA Programme Sem III	Principles of Macroeconomics-I
	Practicals:			
	Tutorials:	Revision and discussion of the previous year papers	BA Programme Sem III	Principles of Macroeconomics-I

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: KRISHNAKUMAR S

Department: ECONOMICS **Semester : I/III/V**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Ricardian model of comparative advantage. H-O-S factor endowments model, specific factors model.	BA(Hons) Economics Sem V	International Economics
	Practicals			
	Tutorials	Problems on Ricardian model and modeling with specific factor model		
AUGUST	**Theory:**	New trade theories. intra-industry trade. Imperfect competition and trade. Dumping and reciprocal dumping. Externalities and decreasing cost curve. Industrial district. Instruments of trade policy. Static welfare analysis of tariffs, subsidies and quotas. Political economy of trade policy.	BA(Hons) Economics Sem V	International Economics
	Practicals:			
	Tutorials:	Problem set on welfare calculation of tariffs and subsidies.		

SEPTEMBER	**Theory:**	Brander Spencer strategic trade policy. Optimum tariff. Trade creation and trade diversion. WTO, RTAs, FTAs.	BA(Hons) Economics Sem V	International Economics
		Introduction to Open Economy Macroeconomics. Uncovered and covered interest parity theories. Nominal and real exchange rates. DD and AA curves		
	Practicals:			
	Tutorials:	Trade creation, trade diversion. Problems of instruments of trade policy		
	Assignment :	Students to assess the external sector performance of economies on the basis of BOPS, DOTS, IFS and WEO Database of IMF		
OCTOBER	**Theory:**	Permanent and temporary fiscal expansion. Permanent and temporary monetary expansion under the DD-AA framework. Exchange rate overshooting. Marshall Lerner conditions. J Curve. Mundell-Fleming model.	BA(Hons) Economics Sem V	International Economics
	Practicals:			

	Tutorials:	Small macro models on the basis of DD AA framework.		
	Test	Test on the basis of four chapters : two from each section		
NOVEMBER	**Theory:**	Financial Globalization. Regulation of banking. Revision	BA(Hons) Economics Sem V	International Economics
	Practicals:			
	Tutorials:	Revision of the trade theory numerical from back of text.		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: N Kalithasammal

Department: Economics **Semester-III**

Month		Topics	Course	Paper Name/
JULY	**Theory**	.Macroeconomics over view of India,the growth story is discussed with the view of India development report	**GE-II YEAR**	**INDIAN ECONOMY PART I**
	Tutorials	The basic educational trend and development and the problems of migrated people in India discussed elaborately.		
AUGUST	**Theory:**	Agricultural growth in India since 1991, going to teach through RBI DEAP study		
	Tutorials:	Reasons for failure of growth in agriculture is going to explain and the reasons are pointing out clearly.		
SEPTEMBER	**Theory:**	LABOUR MARKET AND ITS LEGISLATION, AND UNEMPLOYMENT IS GOING TO EXPLAIN,		

	Tutorials:	Inequwality and concentration of income is going to explain with some inclusive ideas.		
	<u>Assignment :</u>	**Two tests are** going to conduct according to the given schedule.		
NOVEMBER	**Theory:**	Financial sector, policy frame work is going to take, structural changes are going to explain.		
	Tutorials:	Major features and savings and investmentrelated questions going to work out.		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: N Kalithasammal

Department: Economics **Semester-V**

Month		Topics	Course	Paper Name/
JULY-2019	**Theory**	.Macroeconomics over view of India,the growth story is discussed with the view of India development report	**ECO HONS 111 YEAR**	**INDIAN ECONOMY PART I**
	Tutorials	The basic educational trend and development and the problems of migrated people in India discussed elaborately.		
AUGUST	**Theory:**	Agricultural growth in India since 1991, going to teach through RBI DEAP study		
	Tutorials:	Reasons for failure of growth in agriculture is going to explain and the reasons are pointing out clearly.		
SEP	**Theory:**	Labour market and its legislation, and unemployment is going to explain,		

	Tutorials:	Inequality and concentration of income is going to explain with some inclusive ideas.		
	<u>Assignment:</u>	**Two tests are** going to conduct according to the given schedule.		
NOVEMBER	**Theory:**	Financial sector, policy frame work is going to take, structural changes are going to explain.		
	Tutorials:	Major features and savings and investment related questions going to work out.		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Meenakshi Sharma

Department: ECONOMICS **Semester: III, B.A. (H) Economics**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Budget constraint-Taxes, subsidies and Rationing and Preferences: Assumptions about preferences, MRS, ICS	Semester: III, B.A. (H) Economics	Intermediate microeconomics I
	Tutorials	Numericals from Varian Workbook and past years'		Intermediate microeconomics
AUGUST	**Theory:**	Utility; demand; Slutsky equation Hicksian demand : Cardinal, Ordinal, Quasilinear preferences.	Semester: III, B.A. (H) Economics	Intermediate microeconomics I
	Tutorials:	Numericals from Varian Workbook and past years' questions, Appendix of Varian		Intermediate microeconomics I
SEPTEMBER	**Theory:**	Revealed preference. Buying and selling; choice under risk and intertemporal choice;	Semester: III, B.A. (H) Economics	Intermediate microeconomics I
	Tutorials:	Numericals from Varian Workbook and past years' questions, questions from B. Douglas Bernheim and M.		Intermediate microeconomics I
	Test 1 :	Utility, preferences, budget constraint, choice, demand, Slutsky equation		Intermediate microeconomics I
OCTOBER	**Theory:**	Technology, isoquants, production with one and more variable inputs, returns to	Semester: III, B.A. (H) Economics	Intermediate microeconomics I
	Test 2:	Buying and selling; choice under risk and intertemporal choice; revealed preference		

	Tutorials:	Back questions from C. Snyder and W. Nicholson (2010): Fundamentals of Microeconomics		
NOVEMBER	**Theory:**	Cost : short run and long run costs, cost curves in the short and long run; review of perfect competition.	Semester: III, B.A. (H) Economics	Intermediate microeconomics I
	Tutorials:	Back questions from C. Snyder and W. Nicholson (2010): Fundamentals of Microeconomics		

Semester : I, B.A. Programme

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Scarcity and choice: concepts of scarcity, choice and opportunity cost; production possibility frontier; economic systems.		Principles of Microeconomics I
	Tutorials	Problem of scarcity and choice : Numericals from Case n Fair n past years' questions		Principles of Microeconomics I
AUGUST	**Theory:**	Demand and supply; applications of demand and supply; elasticity law of demand, determinants of demand, shifts of demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shifts of supply versus movements along a supply curve, market supply, market equilibrium.		Principles of Microeconomics I
	Tutorials:	Applications of demand and supply: price rationing, price floors, consumer surplus, producer surplus. Elasticity: price elasticity of demand, calculating elasticity, determinants of price elasticity, other elasticities		Principles of Microeconomics I
SEPTEMBER	**Theory:**	Consumer theory: Budget constraint, concept of utility, diminishing marginal utility, Diamond-water paradox, income and substitution effects; consumer choice: indifference curves, derivation of demand curve from		Principles of Microeconomics I
	Tutorials:	Numericals from Case &Fair; and Appendix of Chapter 6		Principles of Microeconomics I

	<u>Test 1 :</u>	Demand and supply and consumer theory		
OCTOBER	**Theory:**	Production and costs Production: behaviour of profit maximising firms, production process, production functions, law of variable proportions, choice of technology, isoquant and isocost lines, cost minimizing equilibrium condition.		Principles of Microeconomics I
	Tutorials:	Numerical from Case &Fair; past years' question papers, and Appendix of Chapter 7.		Principles of Microeconomics I
	<u>Test 2:</u>	Production and costs.		
NOVEMBER	**Theory:**	Perfect competition and welfare: Assumptions: theory of a firm under perfect competition, demand and revenue; equilibrium of the firm in the short run and long run; long run industry supply curve: increasing, decreasing and constant cost industries.		Principles of Microeconomics I
	Tutorials:	Perfect competition and welfare		Principles of Microeconomics I

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Ankit Joshi

Department: Economics **Semester: III (2019- 20)**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	TOPIC 1: AGGREGATE DEMAND & AGGREGATE SUPPLY CURVE Dornbush: Chapter 5	B.A. (Hons.) Economics	227302 Intermediate Macroeconomics - I
	Tutorials	Revision of Basic Concepts		
AUGUST	**Theory:**	TOPIC 1: AGGREGATE DEMAND & AGGREGATE SUPPLY CURVE Dornbush: Chapter 7 O. Blanchard: Pg 292- 294, Pg 300- 306, Ch- 6 & 7	B.A. (Hons.) Economics	227302 Intermediate Macroeconomics - I
	Tutorials:	Discussion on the current Macroeconomic Issues and try to link the macroeconomic models with reality Practice of Back Questions of Unit -1		

SEPTEMBER	**Theory:**	TOPIC 2: INFLATION, UNEMPLOYMENT & EXPECTATIONS O. Blachard: Ch- 8 & 9 CLF, Attfied & NW Duck: Pg 1 – 28 Steven Sheffin: Ch- 2; Pg 25-40	B.A. (Hons.) Economics	227302 Intermediate Macroeconomics - I
	Tutorials:	Practice of additional problems		
	<u>Assignment :</u>	TEST 1: Unit- 1		
OCTOBER	**Theory:**	TOPIC 3: OPEN ECONOMY MODELS Dornbush & Fischer: Ch 6 & 20	B.A. (Hons.) Economics	227302 Intermediate Macroeconomics - I
	Tutorials:	Discussion of some additional Open Economy Models Discussion of Back Questions		
	<u>Test</u>	TEST 2: Unit – 2 & Unit -3 (Dornbush, Ch- 6)		
NOVEMBER	**Theory:**	TOPIC 3: OPEN ECONOMY MODELS Salvatore: Ch 15 & 20.6	B.A. (Hons.) Economics	227302 Intermediate Macroeconomics - I
	Tutorials:	Discussion of Past Years and additional questions		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Ankit Joshi

Department: Economics **Semester: I (2019- 20)**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	SYDSAETER & HAMMOND Ch- 1: Introduction	B.A. (Hons.) Economics	227103 Mathematical Methods for Economics - I
	Tutorials	Providing the basic motivation of the course and discussion on the use of mathematics in economics		
AUGUST	**Theory:**	SYDSAETER & HAMMOND Ch- 2: Functions Ch- 3: Polynomials, Powers & Exponentials	B.A. (Hons.) Economics	227103 Mathematical Methods for Economics - I
	Tutorials:	Teaching students how to plot different curves and to analyse the same Discussion on Book Exercises for Ch- 1 to 4		
SEPTEMBER	**Theory:**	SYDSAETER & HAMMOND Ch- 5: More on Differentiation Ch- 6: Limits, Continuity & Series Ch- 7: Implications of Continuity	B.A. (Hons.) Economics	227103 Mathematical Methods for Economics - I

	Tutorials:	Assignment and additional questions		
	<u>Assignment :</u>	TEST 1: Ch- 1 to 4		
OCTOBER	**Theory:**	SYDSAETER & HAMMOND Ch- 8:Exponential & Logarithmic Functions Ch- 9: Optimization Ch-12: Linear Algebra: Vectors & Matrices	B.A. (Hons.) Economics	227103 Mathematical Methods for Economics - I
	Tutorials:	Discussion on Past Years, Book Exercises and assignment		
	<u>Test</u>	TEST 2: Ch – 5 to 8		
NOVEMBER	**Theory:**	SYDSAETER & HAMMOND Ch- 13: Determinants & Matrix Inversions Ch- 14: Further Topics in Linear Algebra	B.A. (Hons.) Economics	227103 Mathematical Methods for Economics - I
	Tutorials:	Solving Book Exercises and additional questions		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Jitesh Rana

Department: Economics **Semester V BA.(H) Economics**

Month		Topics	Course	Paper Code/Name
JULY/ AUGUST	**Theory**	AVSI: Characteristics of Development, Debraj Ray Ch2, Deaton Ch1	B.A. Hons Economics	2271502: Development Economics – I
	Tutorials	Student doubts and Past year questions from the topics covered.		
SEPTEMBER	**Theory:**	HDR 2016 Technical Note 1, Pranab Bardhan Ch10, Debraj Ray Ch 3 & 4.	B.A. Hons Economics	2271502: Development Economics – I
	Tutorials:	Student doubts and Past year questions from the topics covered.		
	Test 1:	All topics of first 2 units.		
OCTOBER	**Theory:**	DE Ch6, Ch8, Angus Deaton Ch1, Amartya Sen Ch4, Picketty and Saez: Inequality in the Long Run. Elinor Ostrom Ch1, Dietz, Ostrom and Stern: The struggle to	B.A. Hons Economics	2271502: Development Economics – I
	Tutorials:	Student doubts and Past year questions from the topics covered.		

	Test 2:	All topics of unit 3 and coverd topics of unit 4.		
NOVEMBER	**Theory:**	Dani Rodrik: Ch1, Shleifer and Vishny: Corruption, QJE 1993.	B.A. Hons Economics	2271502: Development Economics – I
	Tutorials:	Student doubts and Past year questions from the topics covered. Preparation for final exams.		

Semester I Generic Elective

Month		Topics	Course	Paper Code/Name
JULY/ AUGUST	**Theory**	Mankiw: Ch1,2 and 4	Generic Elective	227101: Introductory Microeconomics
	Tutorials	Student doubts and Past year questions from the topics covered.		
SEPTEMBER	**Theory:**	Mankiw: Ch5, 6, 7 and 8.	Generic Elective	227101: Introductory Microeconomics
	Tutorials:	Student doubts and Past year questions from the topics covered.		
	Test 1:	All topics of first 2 units.		
OCTOBER	**Theory:**	Mankiw: Ch 13, 14, and 21.	Generic Elective	227101: Introductory Microeconomics
	Tutorials:	Student doubts and Past year questions from the topics covered.		
	Test 2:	All topics in unit 3 and 4.		

NOVEMBER	**Theory:**	Mankiw: Ch15 and 18.	Generic Elective	227101: Introductory Microeconomics
	Tutorials:	Student doubts and Past year questions from the topics covered. Preparation for final exams.		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Amit Kumar Jha

Department: ECONOMICS **Semester: V, B.A. (H) Economics**

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Fiscal Function: an Overview(Hendricks & Myles, Chapter 5) Public goods : Definition ,	**B.A. (H) Economics**	Public Economics
	Tutorials	Past Year question, Students doubts		
AUGUST	**Theory:**	Public goods : Definition , Models of efficient allocation, pure and impure public goods, free riding(Cullis & jones, chapter 3,12) Externalities: the problem and its solution, taxes versus regulation, property rights, the coase theorem(Hendricks & Myles, Chapter 8)	**B.A. (H) Economics**	Public Economics
	Tutorials:	Past Year question, Students doubts		
SEPTEMBER	**Theory:**	Externalities: the problem and its solution, taxes versus regulation, property rights, the coase theorem(Hendricks & Myles, Chapter 8) Taxation: its economic effects, dead weight loss and distortion, efficiency and equity considerations, tax incidence, optimal taxation (stiglitz, ch 18, Hendricks & Myles, Chapter 15)	**B.A. (H) Economics**	Public Economics
	Tutorials:	Past Year question, Students doubts		

	<u>Test 1 :</u>	First two units from reading		
OCTOBER	**Theory:**	Taxation: its economic effects, dead weight loss and distortion, efficiency and equity considerations, tax incidence, optimal taxation (Hendricks & Myles, Chapter 16,17)	**B.A. (H) Economics**	Public Economics
	Tutorials:	Past Year question, Students doubts		
NOVEMBER	**Theory:**	Indian Public Finance: tax system, buget, deficit, public debt, fiscal federalism in India	**B.A. (H) Economics**	Public Economics
	Tutorials/ Presentation	Past Year question, Students doubts		

Semester : III, B.A. (H) Economics

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Topic1- Money : Functions, Measurement, Theories of money supply determination BAyes and Jansen ch1 N jadhav ch 2 Rbi report	**B.A. (H) Economics**	Money and Banking(G.E)
	Tutorials	Last year questions, student doubts		
AUGUST	**Theory:**	Topic 2a- Financial institutions, instruments and financial innovation Topic 2b- money and capital markets, organization, structure and reforms in India, role of financial derivative and other innovation Mishkin and eakin ch 15 M y khan ch1 ,9 FAbozzi et al 2 Bates & jansen ch 5	**B.A. (H) Economics**	Money and Banking(G.E)
	Tutorials	Last year questions, student doubts		
SEPTEMBER	**Theory:**	Topic 2b- money and capital markets, organization, structure and reforms in India, role of financial derivative and other innovation Fabozzi et al ch 26, 27, 30 Topic3- interest rates determination, sources of interest rate differential BAyes & jansen 10 Rbi report	**B.A. (H) Economics**	Money and Banking(G.E)
	Tutorials	Last year questions, student doubts		
	Test	Above topics		
OCTOBER	**Theory:**	Topic 4- banking system Sengupta and vardhan Rbi report Rbi bulletin oct 2012	**B.A. (H) Economics**	Money and Banking(G.E)

	Tutorials	Last year questions, student doubts		
NOVEMBER	**Theory:**	Topic 5- Central banking and monetary policy Bayes & jansen ch 19 Jadhav ch 9' My khan ch 9 Annual report of RBi	**B.A. (H) Economics**	Money and Banking(G.E)
	Tutorials/ presentations	Last year questions, student doubts		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Yogita Yadav

Department: Economics **Semester : III**

Month		Topics	Course	Paper Code/Name
AUGUST	**Theory**	1. Introduction & Overview 2. Elementary Probability Theory	B.A (H) Economics	12271303 / Statistical methods for Economics
	Practicals			
	Tutorials	1. Introduction & Overview 2. Elementary Probability Theory		
SEPTEMBER	**Theory:**	1. Random Variables & Probability Distributions (Discreet & continuous Variables) 2. Random Sampling & Jointly Distributed random variables	B.A (H) Economics	12271303 / Statistical methods for Economics
	Practicals:			
	Tutorials:	Assignment on : 1. Random Variables & Probability Distributions (Discreet & continuous Variables) 2. Random Sampling & Jointly Distributed random variables		

	Test :	Internal Assessment 1 on Elementary Probability theory & Probability Distributions (Discreet Variables)		
OCTOBER	**Theory:**	1. Random Sampling & Jointly Distributed random variables 2. Sampling	B.A (H) Economics	12271303 / Statistical methods for Economics
	Practicals:			
	Tutorials:	Assignment on : 1. Random Sampling & Jointly Distributed random variables 2. Sampling		
	Test :	Internal Assessment 2 on Probability distribution (Continuous variables & jointly distributed variables) & Sampling		
NOVEMBER	**Theory:**	1. Point & Interval Estimation	B.A (H) Economics	12271303 / Statistical methods for Economics
	Practicals:			
	Tutorials:	Assignment on : 1. Point & Interval Estimation		
	Test:	Internal Assessment 3 on Estimation		

SEMESTER WISE TEACHING PLAN (2019-20)
SRI VENKATESWARA COLLEGE

Name of the Faculty: Yogita Yadav

Department: Economics **Semester : III**

Month		Topics	Course	Paper Code/Name
AUGUST	**Theory**	1. Key to Budget Documents 2. Budget at a Glance	B.A (Prog)	62273326 / Understanding the Economic Survey and
	Practicals			
	Tutorials	Discussions on Presentation Topics		
SEPTEMBER	**Theory:**	1. Making of Union Budget 2. Finance Commission	B.A (Prog)	62273326 / Understanding the Economic Survey and Union Budget
	Practicals:			
	Tutorials:	Doubt sessions on Presentations		

OCTOBER	**Theory:**	1. Fiscal Federalism 2. Economic Survey (Vol 1)	B.A (Prog)	62273326 / Understanding the Economic Survey and Union Budget
	Practicals:			
	Tutorials:	Doubt sessions on Presentations		
	Test :	Presentations		
NOVEMBER	**Theory:**	1. Economic Survey (Vol 1 & 2)	B.A (Prog)	62273326 / Understanding the Economic Survey and Union Budget
	Practicals:			
	Tutorials:			
	Test:	Presentations		

SEMESTER WISE TEACHING PLAN
(2019-2020)
SRI VENKATESWARA COLLEGE

Name of the Faculty: **Dr. Haokam Vaiphei** Department: Political **Science**
ODD Semester: **I/III/V**

Name of the paper: **United Nations and Global Conflicts GE-I**

Month		Topic	Course	Paper Code/Name
July	**Theory**	The United Nations (a) An Historical Overview of the United Nations (b) Principles and Objectives	Honours GE Paper	**United Nations and Global Conflict**
	Practicals			
	Tutorials	Un Agencies		
August	**Theory**	Structures and Functions: Six Organs and Agencies		
	Practicals			
	Tutorials			
	Assignment	Any Major Conflicts		
September	**Theory**	Peace Keeping, Peace Making and Enforcement, Peace Building and Responsibility to Protect Millennium Development Goals		
	Practicals			
	Tutorials	MGD		
October	**Theory**	***Major Global Conflicts since the Second World War*** (a) Korean War (b) Vietnam War (c) Afghanistan Wars (d) Balkans: Serbia and Bosnia		
	Practicals			
	Tutorials	Balkan Conflicts		
	Test	Test in Unit I and II		
November	**Theory**	Assessment of the United Nations as an International Organization: Imperatives of Reforms and the Process of Reforms		
	Practicals			
	Tutorials	Assessment of UN		

Name of the Paper: **Legislative Practices and Procedures (SEC) SEM III**

Month		Topic	Course	Paper Code/Name
July	**Theory**	***Powers and functions of people's representative at different tiers of governance*** Members of Parliament, State legislative assemblies Functionaries of rural and urban local self-government from Zila Parishad, Municipal Corporation to Panchayat/ward.	Honours SEC Paper	**Legislative Practices and Procedures**
	Practicals			
	Tutorials	Role of MLAs/MPs		
August	**Theory**	***Supporting the legislative process***		

		How a bill becomes law Role of the Standing committee in reviewing a bill Legislative consultants & the framing of rules and regulations.		
	Practicals			
	Tutorials			
	Assignment	Problems & Prospects of New Farm Acts		
September	**Theory**	***Supporting the Legislative Committees*** Types of committees, role of committees in reviewing government finances, policy, programmes, and legislation.		
	Practicals			
	Tutorials	Role of Standing Committees		
October	**Theory**	***Reading the Budget Document*** Overview of Budget Process Role of Parliament in reviewing the Union Budget, Examination of Demands for Grants of Ministries, Working of Ministries.		
	Practicals			
	Tutorials	Role of Media in Indian Democracy		
	Test	Unit III, IV & V		
November	**Theory**	***Support in media monitoring and communication*** Types of media and their significance for legislators; Basics of communication in print and electronic media.		
	Practicals			
	Tutorials	Revision		

Name of the Paper: **Comparative Government & Politics BA P III SEM**

Month		Topic	Course	Paper Code/Name
July	**Theory**	Powers and functions of people's representatives at different tiers of governance Members of Parliament, State Legislative Assemblies, functionaries of rural and urban local self-government from Zila Parishads/Municipal Corporation to Panchayat/Ward.	BA P Paper	**Comparative Government & Politics**
	Practicals			
	Tutorials	Assessing the role of MLAs & MPs		
August	**Theory**	Supporting the legislative process: How a Bill becomes a Law, Role of the Standing Committee in reviewing a Bill, Legislative Consultations, amendments to a Bill & The framing of Rules and Regulations.		
	Practicals			
	Tutorials	Differences between a bill & Law		
	Assignment	Write a Critique on the role of Parliamentary Committees		
September	**Theory**	Supporting the legislative committees Types of committees, Role of committees		

		in reviewing government finances, policy, programmes, and legislation.		
	Practicals			
	Tutorials	Critical role of committees in determining an act		
October	**Theory**	Reading the budget document: Overview of Budget Process, Role of Parliament in reviewing the Union Budget, Railway Budget, Examination of Demands for Grants of Ministries, Working of Ministries		
	Practicals			
	Tutorials	Union Budget		
	Test	Unite-II, III & IV		
November	**Theory**	Support in media monitoring and communication: Types of media and their significance for legislators. Basics of communication in print and electronic media		
	Practicals			
	Tutorials	Revision		

Name of the Paper: **Introduction to Political Theory SEM I**

Month		Topic	Course	Paper Code/Name
July	**Theory**	What is Politics?	BA P	**Introduction to Political Theory**
	Practicals			
	Tutorials			
August	**Theory**	What is Political Theory and what is its relevance?		
	Practicals			
	Tutorials			
	Assignment	Write an essay on the different view Politics?		
September	**Theory**	Democracy & Liberty		
	Practicals			
	Tutorials			
October	**Theory**	Equality & Justice,		
	Practicals			
	Tutorials			
	Test	Unit I &II		
November	**Theory**	Rights		
	Practicals			
	Tutorials			

Name of the Paper: **BA P in lieu of MIL SEM III**

Month		Topic	Course	Paper Code/Name
January	**Theory**	Globalization a) What is it?	BA P in lieu of MIL	**A Globalizing World**
	Practicals			
	Tutorials			

February	**Theory**	Dimensions Economic, Political, Technological and Cultural Dimensions		
	Practicals			
	Tutorials			
	Assignment	Dimensions of Globalisation		
March	**Theory**	Contemporary World Actors a) United Nations b) World Trade Organisation (WTO) Group of 77 Countries (G-77)		
	Practicals			
	Tutorials			
April	**Theory**	Global Environmental Issues (Global Warming, Bio-diversity, Resource Scarcities)		
	Practicals			
	Tutorials			
	Test	Unit I & II		
May	**Theory**	Poverty and Inequality, International Terrorism		
	Practicals			
	Tutorials	Revision		

(Dr. Haokam Vaiphei)
Assistant Professor
Department of Political Science

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
July-November, 2020

Name of the Faculty: **Dr. M. V. R. Prasada Rao**

Department: **Statistics**

Semester: III, V

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	Introduction and Objective behind building Econometric Models	Bachelor of Statistics (Hons.)	STAT-DSE 2-(B): Econometrics
		Estimation of population mean, confidence intervals for the parameters of a normal population		STAT-GE-3 Basics of Statistical Inference
	Practicals:			
	Tutorials:			
AUGUST	**Theory:**	General linear models, Estimation under linear restrictions, Multicollinearity	Bachelor of Statistics (Hons.)	STAT-DSE 2-(B): Econometrics
		The basic idea of significance test. Null and alternative hypothesis. Type I & Type II errors, level of significance, concept of p-value. Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems)		STAT-GE-3 Basics of Statistical Inference
	Practicals:	Based on General linear models, Estimation under linear restrictions		
	Tutorials:			
SEPTEMBER	**Theory:**	Concepts, Consequences, Tests for detection and Remedies, Generalized least squares, Concepts, Aitken's Estimator, Prediction	Bachelor of Statistics (Hons.)	STAT-DSE 2-(B): Econometrics
		Categorical data: Tests of proportions, tests of association and goodness-of-fit using Chi-		STAT-GE-3 Basics of Statistical Inference
	Practicals:	Based on and Remedies, Generalized least squares, Concepts, Aitken's Estimator		

	Tutorials:			
	Assignment	Based on restrictions, Multicollinearity		
OCTOBER	**Theory**	Autocorrelation, Concepts, Consequences, Tests for detection and Remedies, Heteroscedasticity, Concepts, Consequences, Tests	Bachelor of Statistics (Hons.)	STAT-DSE 2-(B): Econometrics
		Tests for the significance of correlation coefficient. Sign test for median, Sign test for symmetry, Wilcoxon two-sample tes		STAT-GE-3 Basics of Statistical Inference
	Practicals:	Based on Autocorrelation, Concepts, Consequences, Tests for detection and Remedies, Heteroscedasticity, Concepts, Consequences		
	Mid Term Test	Unit-I, Unit-II and Unit-III		
NOVEMBER	**Theory:**	Tests for detection and Remedies, Autoregressive and Lag models, Concepts, Consequences and Remedies	Bachelor of Statistics (Hons.)	STAT-DSE 2-(B): Econometrics
		Analysis of variance, one-way and two-way classification. Brief exposure of three basic principles of design of experiments, treatment, plot and block. Analysis of completely randomized design, randomized complete block design. Bioassay.		STAT-GE-3 Basics of Statistical Inference
	Practicals:	Based on Tests for detection and Remedies, Autoregressive and Lag models, Con cepts, Consequences and Remedies		
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Odd Semester 2019-2020

Name of Faculty: Dr. Veena Budhraja **Department: Statistics**
Semester: I, III, V

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	Probability Distributions: Generating functions, Bivariate probability generating functions.(Unit-I)	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory
		Real Analysis: Representation of real numbers as points on the line and the set of real numbers as complete ordered field. Bounded and unbounded sets, neighborhoods and limit points	B.Sc. (H) Statistics	STAT-C-303: Mathematical Analysis
	Practicals:	To find p_n from probability generating function	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory
	Tutorials:			
AUGUST	**Theory:**	Stochastic Process: Introduction, Stationary Process, Markov Chains: Definition of Markov Chain with examples, transition probability matrix, order of Markov chain, Markov chain as graphs	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory
		Supremum and infimum, derived sets, open and closed sets, sequences and their convergence, limits of some special sequences such as and Cauchy's general principle of convergence, Cauchy's first theorem on limits, monotonic sequences, limit superior and limit inferior of a bounded sequence.	B.Sc. (H) Statistics	STAT-C-303: Mathematical Analysis
	Practicals:	To form transition probability matrix for given problem	B.Sc. (H) Statistics	
	Tutorials:			
SEPTEMBER	**Theory:**	Higher transition probabilities. Generalization of independent Bernoulli trials, classification of states and chains,Stability of Markov system, Poisson Process: postulates of Poisson process, properties of Poisson process, inter- arrival time,	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory
		Infinite series, positive termed series and their convergence, Comparison test, D'Alembert's ratio test, Cauchy's nth root test, Raabe's test. Gauss test, Cauchy's condensation test and integral test (Statements and Examples only). (Unit-II)	B.Sc. (H) Statistics	STAT-C-303: Mathematical Analysis
	Practicals:	To classify the state and to find the stability of Markov system	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory

	Tutorials:			
	Assignment	Assignment on p.g.f's and Markov chain and Poisson process	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory
		Assignment based on neighborhoods, open set, closed set, sequences, series		
OCTOBER	**Theory**	Pure birth process, Yule Furry process, birth and death process, pure death process, Queuing System: General concept, steady state distribution, queuing model, M/M/1 with finite and infinite system capacity, waiting time distribution	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory
		Absolute convergence of series, Leibnitz's test for the convergence of alternating series, Conditional convergence. Review of limit, continuity and differentiability, uniform Continuity and boundedness of a function. Rolle's and Lagrange's Mean Value theorems. Taylor's theorem with lagrange's and Cauchy's form of remainder. (Unit-III)	B.Sc. (H) Statistics	STAT-C-303: Mathematical Analysis
	Practicals:	To find birth and death process for different values of λ, and to find p_n for M/M/1 model		
	Tutorials:			
	Mid Term Test	Unit I and Unit II		
NOVEMBER	**Theory:**	Gambler's Ruin Problem: Classical ruin problem, expected duration of the game.	B.Sc. (H) Statistics	STAT-C-501 Stochastic Processes and Queuing Theory
		Taylor's and Maclaurin's series expansions of sinx, cosx, log (1+x), Unit-III	B.Sc. (H) Statistics Semester III	STAT-C-303: Mathematical Analysis
	Practicals:	Based on Ruin Problem		
	Tutorials:			

SEMESTER WISE TEACHING PLAN

SRI VENKATESWARA COLLEGE

Odd Semester -2019-20

Name of the Faculty: **Dr. M.K. Sukla** **Department:** **Statistics**

Semester : I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	Limits of function, continuous functions. Properties of continuous functions.	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
		Stratified random sampling: Technique, estimates of population mean	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Practicals:	Graphical representation of data	**GE-1**	**STAT-GE-1 Statistical Methods**
	Tutorials:	Practice Questions and Doubt Clearing for above topics	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
AUGUST	**Theory:**	Partial differentiation and total differentiation. Indeterminate forms: L-Hospital's rule. Leibnitz rule for successive differentiation. Euler's theorem on homogeneous functions.	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
		Estimates of population total and variances of mean and total, proportional and optimum allocations.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Practicals:	Presentation of data by tables and graphs, Measures of central tendency, cumulative frequency distributions	**GE-1**	**STAT-GE-1 Statistical Methods**
		To select SRS with and without replacement, For a population of size 5, estimate population mean, population mean square and population variance. Enumerate all possible samples of size 2 by WR and WOR and establish all properties relative to SRS, For SRSWOR, estimate mean, standard error, the sample size.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**

	Tutorials:	Practice Questions and Doubt Clearing for above topics	**Bachelor of Statistics (H)**	**STAT-C-102: CALCULUS**
SEPTEMBER	**Theory:**	Maxima and minima of functions of one and two variables, constrained optimization techniques (with Lagrange multiplier) along with some problems. Jacobian, concavity and convexity, points of inflexion of function, singular points. Theory of Asymptotes (Only for Cartesian forms).	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
		Comparison of stratified (Under different allocations) with SRS .	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Practicals:	Measures of dispersion, Moments Measures of skewness and kurtosis	**GE-1**	**STAT-GE-1 Statistical Methods**
		Stratified Sampling: allocation of sample to strata by proportional and Neyman's methods Compare the efficiencies of above two methods relative to SRS.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Tutorials:	Practice Questions and Doubt Clearing for above topics.	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
	<u>Assignment</u>	Questions based on L'Hospital Rule Questions based on Leibnitz rule for successive differentiation.	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
		Assignments will be based on unit I and Unit III	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Theory	Differential Equations: Exact differential equations, Integrating factors, change of variables, Total differential equations, Differential equations of first order and first degree, Differential equations of first order but not of first degree, Equations solvable for x, y, q, Equations of the first degree in x and y, Clairaut's equations. Higher Order Differential Equations: Linear differential equations of order n,	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**

OCTOBER		Homogeneous and non-homogeneous linear differential equations of order n with constant coefficients, Different forms of particular integrals		
		Practical difficulties in allocation, estimation of gain in precision.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Practicals:	Bivariate data, scatter diagram, principle of least squares and curve fitting, Pearson's correlation, rank correlation	**GE-1**	**STAT-GE-1 Statistical Methods**
		Estimation of gain in precision in stratified sampling, Comparison of systematic sampling with stratified sampling and SRS in the presence of a linear trend and using end's correction, Ratio and Regression estimation: Calculate the population mean or total of the population. Calculate mean squares. Compare the efficiencies of ratio and regression estimators relative to SRS.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Tutorials:	Practice Questions and Doubt Clearing for above topics	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
	<u>Mid Term Test</u>	Maxima minima, Leibnitz theorem, partial differentiation, Beta Gamma Function, Double Integral.	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
		Course covered up to mid-term break.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
NOVEMBER	**Theory:**	Linear differential equations with non-constant coefficients, Reduction of order method. The Cauchy-Euler's equation of order n, Legendre's linear equation, Revision	**Bachelor of Statistics (H) Semester I**	**STAT-C-102: CALCULUS**
		post stratification and its performance, Collapsed strata.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Practicals:	Regression, Multiple and partial correlation, Theory of attributes	**GE-1**	**STAT-GE-1 Statistical Methods**

		Cluster sampling: estimation of mean or total, variance of the estimate, estimate of intra-class correlation coefficient, efficiency as compared to SRS.	**Bachelor of Statistics (H) Semester III**	**STAT-C-302: Survey Sampling and Indian Official Statistics**
	Tutorials:	Practice Questions and Doubt Clearing for above topics	**Bachelor of Statistics (Hons.) Semester I**	**STAT-C-102: CALCULUS**

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
July-November, 2019

Name of the Faculty: Akash Varshney

Department: Statistics

Semester: I/III/V

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	Introduction to times series data, application of time series from various fields, Components of a times series, Decomposition of time series.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Integration Revision	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
		Numerical Analysis: Factorial, finite differences and interpolation. Operators, and divided difference.	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
		Estimation of trend by free hand curve method, method of semi averages, fitting mathematical curve and growth curves.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
	Practicals:	1.Fitting and plotting of modified exponential curve by different methods	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Formation of difference table, fitting of polynomial and missing terms for equal interval of differencing	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
	Tutorials:	Practice Questions and Doubt Clearing for above topics	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
AUGUST	**Theory:**	Estimation of trend by method of moving averages. Detrending: effect of elimination of trend on other components of a time series.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Integral Calculus: Review of integration and definite integral. Differentiation under integral sign.	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
		Newton's forward, backward and divided differences interpolation,	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis

		Seasonal Component: Estimation of seasonal component by the methods of - simple averages, Ratio to Trend, Ratio to Moving Averages and Link Relative method. Deseasonalization. Practical work.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
	Practicals:	2.Fitting and plotting of Gompertz curve by different methods. 3. Fitting and plotting of logistic curve by different methods 4. Fitting of trend by Moving Average Method for given extent and for estimated extent. 5. Fitting of trend by Spencer's 15-point and 21-point formulae 6. Measurement of Seasonal indice	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
	Tutorials:	Based on Newton's Gregory forward difference interpolation formula . Based on Newton's backward difference interpolation formula	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
SEPTEMBER	**Theory:**	Cyclic Component: Harmonic Analysis.Random Component: Variate difference method.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Double integral, change of order of integration, transformation of variables Beta and Gamma functions: properties and relationship between them.	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
		Central differences, Derivation of Gauss and Stirling interpolation formulae. formulae. Lagrange's interpolation formulae.	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
		Stationary Time series: Weak stationarity, autocorrelation function and the correlogram. Some Special Processes: Moving-average (MA) process and Autoregressive (AR) processes. Estimation of the	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
	Practicals:	. Measurement of Seasonal indices • Simple Averages method. • Ratio-to-Trend method • Ratio-to-Moving Average method • Link Relative method	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Practicals Based on Newton's divided difference and Lagrange's interpolation formula Based on Gauss forward, Gauss backward central difference interpolation formula Based on Stirling's central difference interpolation formula Based on Lagrange's Inverse interpolation formula	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis

	Assignment	Q1 Different Methods of fitting of Logistic Curve (i) Yule's Method (ii) Hotelling's Method (iii) Successive approximation Method Q. Periodogram and Harmonic Analysis	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Questions based on Differtiation under Integral sign	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
		divided difference. Newton's divided differences interpolation, Central differences, Gauss forward,Gauss Backward formulae	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
OCTOBER	**Theory**	Introduction to methods of Forecasting a time series. Forecasting by the methods of Exponential smoothing	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Formation and solution of a partial differential equations**.** Equations easily integrable. Linear partial differential equations of first order. Non-linear partial differential equation of first order and their different forms. Charpit's method.	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
		Numerical integration. Trapezoidal rule, Simpson's one-third rule, three-eights rule, Weddle's rule with error terms. Stirling's Formulae. Euler-Maclaurin summation formula.	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
		Introduction to ARMA and ARIMA models. Short-term forecasting method: Brown's discounted regression.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
	Practicals:	Estimation of variance of the random component by variate difference method 8. Forecasting by exponential smoothing 9. Plotting of Correlogram of moving average.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Practical : Based on method of successive approximation or iteration Based on method of reversion of series Based on Trapezoidal Rule, Simpson's one-third rule, Simpson's three-eighth rule, Weddle's rule	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
	Tutorials:			

	Mid Term Test	Cyclic Component: Harmonic Analysis.Random Component: Variate difference method. Estimation of the parameters of AR (1) and AR (2). Autocorrelation functions of AR(1) and AR(2) processes.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Beta Gamma Function, Double Integral.	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
		Topics based on Central Difference Formulae, Numerical Integration.	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
NOVEMBER	**Theory:**	Short-term forecasting method: Box-Jenkins method. Short-term forecasting method: Bayesian forecasting	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		Homogeneous linear partial differential equations with constant coefficients. Different cases for complimentary functions and particular integrals.	B.Sc.(H) Statistics Sem-I	STAT-C-102: CALCULUS
		Solution of difference equations of first order. Revision	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
	Practicals:	Forecasting by exponential smoothing 9. Plotting of Correlogram of moving average. Revision of Practicals.	B.Sc.(H) Statistics Sem-V	STAT-DSE – 1 (A): Time Series Analysis
		To find sum by Euler-Maclaurin summation formula. Revision of Practicals.	B.Sc.(H) Statistics Sem-III	STAT-C-303: Mathematical Analysis
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
Odd Semester -2019-20

Name of the Faculty: Dr. Dipika **Department: Statistics**
Semester: I, III, V

Month		Topics	Course	Paper Code/Name
JULY	**Theory**	Concept of population and sample, complete enumeration versus sampling, sampling and non-sampling errors. Types of sampling: non-probability and probability sampling, basic principle of sample survey, Simple random sampling with and without replacement, definition and procedure of selecting a sample, estimates of: population mean, total and proportion, variances of these estimates, estimates of their variances and sample size determination.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Introduction to R, Installation of packages and modules, loading of data, playing with arithmetic expressions. Introduction to data types.	B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
		Analysis of variance, One-way and two-way classification.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Practicals	Estimators of population mean.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Tutorials			
AUGUST	**Theory**	Systematic Sampling: Technique, estimates of population mean and total, k). Comparison of systematic sampling×variances of these estimates (N = n with SRS and stratified sampling in the presence of linear trend and corrections. Circular systematic sampling (only definition), Introduction to ratio and regression methods of estimation, first approximation to the population mean and total (for SRS of large size), variances of these estimates and estimates of these variances, variances in terms of correlation coefficient for regression method of estimation and their comparison with SRS, Concept of sub sampling, Cluster sampling (equal clusters only) estimation of population mean and its variance, comparison (with and without randomly formed clusters).	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Graphical representation and interpretation viz. bar-plot, pie-chart, and box plot, stem-leaf, histograms (equal class intervals and unequal class intervals), frequency polygon, ogives with graphical summaries of data, Generate automated reports giving detailed descriptive statistics.	B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
		Brief exposure of three basic principles of design of experiments, treatment, plot and block.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Practicals	To select SRS with and without replacement, For a population of size 5, estimate population mean, population mean square and population variance. Enumerate all possible samples of size 2 by WR and WOR and establish all properties relative to SRS, For SRSWOR, estimate mean, standard error, the sample	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics

		size.		
		Based on Plotting Graphs and Descriptive Statistics using R.	B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
		Confidence interval for the parameters of a normal distribution (one sample and two sample problems), Analysis of Variance of a one way classified data.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Tutorials			
SEPTEMBER	**Theory**	Relative efficiency of cluster sampling with SRS in terms of intra class correlation, Stratified random sampling: Technique, estimates of population mean and total, variances of these estimates.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Import data, code editing, Scatter plot; correlation and lines of regression, Curvilinear regression, User defined functions, Introduction to flow control: if(), for() and while() loop.	B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
		Completely randomized design (CRD)	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Practicals	Stratified Sampling: allocation of sample to strata by proportional and Neyman's methods Compare the efficiencies of above two methods relative to SRS.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Based on Random Number generation, fitting curves and simple statistical analysis using R software.	B.Sc. (H) Statistics, Semester III	STAT-SEE-2, Statistical Data Analysis Using R
		Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems), Analysis of Variance of a two way classified data, Analysis of a CRD.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Tutorials			
	Assignment	Assignments will be based on unit I and Unit III	B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
OCTOBER	**Theory**	Proportional and optimum allocations and their comparison with SRS. Practical difficulties in allocation, estimation of gain in precision, post stratification and its performance, Collapsed strata.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Random number generation and sampling procedures. Application problems based on fitting of suitable distribution, Q-Q plot, Multiple Regression.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Randomized complete block design (RCBD).	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Practicals	Estimation of gain in precision in stratified sampling, Comparison of systematic sampling with stratified sampling and SRS in the presence of a linear trend and using end's correction, Ratio and Regression estimation: Calculate the population mean or total of the population. Calculate mean squares. Compare the	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics

		efficiencies of ratio and regression estimators relative to SRS.		
		Based on Plotting Graphs and Descriptive Statistics using R	B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
		Chi-square test of proportions. Test for correlation coefficient, Sign test for median, Analysis of an RBD.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Tutorials			
	<u>Test</u>	Course covered up to mid-term break.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
			B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
			Generic Elective	STAT-GE-3: Basics of Statistical Inference
NOVEMBER	**Theory**	Present official statistical system in India, Methods of collection of official statistics, their reliability and limitations. Role of Ministry of Statistics & Program Implementation (MoSPI), Central Statistical Office (CSO), National Sample Survey Office (NSSO), and National Statistical Commission. Government of India's Principal publications containing data on the topics such as population, industry and finance.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Basics of statistical inference in order to understand hypothesis testing, compute p-values and confidence intervals, Simple analysis and create and manage statistical analysis projects.	B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
		Bioassay.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Practicals	Cluster sampling: estimation of mean or total, variance of the estimate, estimate of intra-class correlation coefficient, efficiency as compared to SRS.	. B.Sc.(H) Statistics	STAT-C-302: Survey Sampling and Indian Official Statistics
		Based on Random Number generation, fitting curves and simple statistical analysis using R software.	B.Sc.(H) Statistics	STAT-SEC-2: Statistical Data Analysis Using R
		Sign test for symmetry, Wilcoxon two-sample test, Chi-square tests of association, Chi-square test of goodness-of-fit.	Generic Elective	STAT-GE-3: Basics of Statistical Inference
	Tutorials			

SEMESTER WISE
TEACHING PLAN
SRI VENKATESWARA
COLLEGE

Teaching Plan 2019-20

Name of the Faculty: Dr. Alok Kumar Singh

Department: Statistics

Semester: I and V

Month		Topics	Course	Paper Code/Name
JULY	**Theory:**	Overview of C, Constants, Variables and Data Types	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Introduction to statistics**,** development, importance and scope of statistics Measurement scales and types of data	**GE-1**	**STAT-GE-1 Statistical Methods**
	Practicals:	Plotting of a graph Roots of a quadratic equation (with imaginary roots also)	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++**
		Graphical representation of data	**GE-1**	**STAT-GE-1 Statistical Methods**
AUGUST	**Theory:**	Operators and Expressions, Managing Input and Output Operations, Decision Making and Branching, Develop programs to do statistical computing	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Presentation of data by tables and graphs Measures of central tendency, cumulative frequency distributions	**GE-1**	**STAT-GE-1 Statistical Methods**
	Practicals:	Sorting of an array and hence finding median Mean, Median and Mode of a Grouped Frequency Data Variance and coefficient of variation of a Grouped Frequency Data Preparing a frequency table	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**

		Problems based on measures of central tendency	**GE-1**	**STAT-GE-1 Statistical Methods**
SEPTEMBER	**Theory:**	Decision Making and Looping, Develop programs to do statistical computing, Arrays, Develop programs to do statistical computing related to arrays, matrices etc, Character Arrays, Strings	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Measures of dispersion, Moments Measures of skewness and kurtosis	**GE-1**	**STAT-GE-1 Statistical Methods**
	Practicals:	Value of n! using recursion Matrix addition, subtraction, multiplication Transpose and Trace Chi-square contingency table	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Problems based on measures of dispersion Problems based on combined mean and variance and coefficient of variation Problems based on moments, skewness and kurtosis	**GE-1**	**STAT-GE-1 Statistical Methods**
	Assignment	Based on topic covered up to September		
OCTOBER	**Theory**	File Management in C, Develop programs to do statistical computing using files input/output files, User- defined Functions, Develop programs to do statistical computing using user defined functions, recursion.	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Bivariate data, scatter diagram, principle of least squares and curve fitting, Pearson's correlation, rank correlation	**GE-1**	**STAT-GE-1 Statistical Methods**

	Practicals:	t-test for difference of means Paired t-test, F-ratio test	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Fitting of polynomials, exponential curves Karl Pearson correlation coefficient Partial and multiple correlations	**GE-1**	**STAT-GE-1 Statistical Methods**
	Mid Term Test	Based on Unit 1 to Unit 3		
NOVEMBER	**Theory:**	Structure and Pointers, Develop programs to do statistical computing with the concept of structures and pointers, Dynamic Memory Allocation and the Preprocessor	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Regression, Multiple and partial correlation, Theory of attributes	**GE-1**	**STAT-GE-1 Statistical Methods**
	Practicals:	Multiple and Partial correlation. Compute ranks and then calculate rank correlation Fitting of lines of regression	**B.Sc. (Hons) Statistics**	**STAT-C-502 Statistical Computing Using C/C++ Programming**
		Spearman rank correlation with and without ties Correlation coefficient for a bivariate frequency distribution Lines of regression, angle between lines and estimated values of variables	**GE-1**	**STAT-GE-1 Statistical Methods**

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
July-November, 2019

Name of the Faculty: Dr. Ramesh Kumar

Department: Statistics

Semester: III

Month		Topics	Course	Paper Code/Name
AUGUST	Theory:	Limit laws, different types of convergence and their inter relations, Central Limit Theorem (CLT), applications and examples based on CLT, Order statistics: distribution of rth order, largest and smallest order statistics and joint distribution of two order statistics,	Bachelor of Statistics (Hons.)	STAT-C-301: SAMPLING DISTRIBU-TIONS STAT-GE-3: BASICS OF STATISTICAL INFERENCE
		Estimation of population mean, confidence intervals for the parameters of a normal distribution (one sample and two sample problems). The basic idea of significance test. Null		
	Practicals:	Practical based on different types of convergence and Central Limit Theorem (CLT)		
	Tutorials:	Discuss problems related to theory		
SEPTEMBER	Theory:	Order statistics: Distribution of sample median and range. Examples based on theory Sampling distributions: definition of parameter, statistic, standard error and their concepts, Sampling distribution of various statistics, Introduction to hypothesis testing (classical and p value approach): formulation of null and alternative hypothesis, type I and Type II errors, level of significance and critical region. Examples based on these	Bachelor of Statistics (Hons.)	STAT-C-301: SAMPLING DISTRIBU-TIONS STAT-GE-3: BASICS OF STATISTICAL INFERENCE
		. Type I & Type II errors, level of significance, Concept of pvalue, Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems)		
	Practicals:	Practical based on Sampling distributions		
	Tutorials:			

OCTOBER	Theory:	Chi square distribution: Definition and derivation of p.d.f. of $\chi 2$ with n degrees of freedom (d.f.) using m.g.f., nature of p.d.f. curve for different degrees of freedom, mean, variance, m.g.f., cumulant generating function, mode, additive property and limiting form of $\chi 2$ distribution.Tests of significance and confidence intervals based on Chi-Square Distribution. Includes examples and practical work		STAT-C-301: SAMPLING DISTRIBU-TIONS
		Large sample tests: for single mean, single proportion, difference of two means, difference of two proportions, difference of two standard deviations all with examples Examples and practical work based on these tests Categorical data: Tests of proportions,	Bachelor of Statistics (Hons.)	BASICS OF STATISTICAL INFERENCE
	Practicals:	Practical based on theory		
	Mid Term Test	Test based on Unit-I and Unit-II		
	Assignment	Assignment related to testing of significance		
NOVEMBER	Theory	Student's and Fishers t-distribution: Derivation of p.d.f., nature of probability curve with different degrees of freedom, mean, variance, moments and limiting form of the distribution, Distribution of sample correlation coefficient when population correlation coefficient is zero. Tests of significance and confidence intervals based on t distribution. Distribution of F statistic: derivation of p.d.f., nature of probability curve with different degrees of freedom, mean, variance, moments, mode and limiting form of the distribution, points of inflexion. Distribution of 1/F(n1,n2). Relationship between t, F and $\chi 2$ distributions. tests of association and goodness-of-fit using , chi square Test, Yates' correction	Bachelor of Statistics (Hons.)	STAT-C-301: SAMPLING DISTRIBU-TIONS STAT-GE-3: BASICS OF STATISTICAL INFERENCE
	Practicals:	Practical based on Sampling distributions Chi square distribution		
	Tutorials:			

SEMESTER WISE TEACHING PLAN
SRI VENKATESWARA COLLEGE
ODD SEMESTER 2019-2020

Name of the Faculty: Dr. Tanuja Sriwastava

Department: Statistics

Semester: III, V

Month		Topic	Course	Paper Code/ Name
October	Theory	Queuing System: General concept, steady state distribution, queuing model, M/M/1 with finite and infinite system capacity,	B.Sc. (H) Statistics, Semester V	STAT-C-501, Stochastic Process and Queueing Theory
		Multicollinearity: Introduction and concepts, detection of multicollinearity, consequences.	B.Sc. (H) Statistics, Semester V	STAT-DSE-2(B), Econometrics
		Learn how to load data, plot a graph viz. histograms (equal class intervals and unequal class intervals), box plot, stem-leaf, frequency polygon, pie chart, ogives with graphical summaries of data, Generate automated reports giving detailed descriptive statistics, correlation and lines of regression.	B.Sc. (H) Statistics, Semester III	STAT-SEE-2, Statistical Data Analysis Using R
	Practical	Based on Plotting Graphs and Descriptive Statistics using R	B.Sc. (H) Statistics, Semester III	STAT-SEE-2, Statistical Data Analysis Using R
	Tutorials			
November	Theory	waiting time distribution (without proof). Gambler's Ruin Problem: Classical ruin problem, expected duration of the game.	B.Sc. (H) Statistics, Semester V	STAT-C-501, Stochastic Process and Queueing Theory
		Tests and solutions of multicollinearity, specification error.	B.Sc. (H) Statistics, Semester V	STAT-DSE-2(B), Econometrics
		Random number generation and sampling procedures. Fitting of polynomials and exponential curves.Application Problems based on fitting of suitable distribution, Normal probability plot. Simple analysis and create and manage statistical analysis projects, import data, code editing, Basics of statistical inference in order to understand hypothesis testing and compute p-values and confidence intervals.	B.Sc. (H) Statistics, Semester III	STAT-SEE-2, Statistical Data Analysis Using R
	Practical	Based on Random No generation, fitting curves and simple statistical analysis unsing R software.	B.Sc. (H) Statistics, Semester III	STAT-SEE-2, Statistical Data Analysis Using R
	Tutorials			

SRI VENKATESWARA COLLEGE
SEMESTER WISE TEACHING PLAN (2020-2021)

Teacher Name: Dr Chetan **Department: Statistics**

Semester: Odd Semester (Semester I, III &V)

Semester III &V

Month		Topics	Course	Paper Code/Name
Aug.	**Theory**	Introduction to Multicollinearity and basic concepts Detection of Multicollinearity, and its consequences. Tests and solutions of Multicollinearity.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Practical	Problems related to consequences of Multicollinearity. Diagnostics of Multicollinearity.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Tutorials	--	--	--
	Assignment	Assignment was given on different topics related with curriculum to each student.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Theory	Basics of Statistical Inference & some related definitions. Estimation of population mean Confidence intervals for the parameters of a normal distribution (one sample and two sample problems).	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Practical	Estimators of population mean. Confidence interval for the parameters of a normal distribution (one sample and two sample problems).	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Tutorials	--	--	--
	Assignment	Assignment was given on different topics related with curriculum to each student.	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
Sept.	**Theory**	Generalized least squares estimation, Aitken estimators. Concept consequences of Autocorrelated disturbances.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Practical	Diagnostics of Multicollinearity. Problems related to consequences of Autocorrelation (AR(I)).	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Tutorials	--	--	--
	Test	The mock test was conduction on the first two units (some topics) of the curriculum on OBE Pattern.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics

	Theory	The basic idea of significance test, Null and alternative hypothesis, Type I & Type II errors, level of significance, Concept of p-value, Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems).	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Practical	Tests of hypotheses for the parameters of a normal distribution (one sample and two sample problems).	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Tutorials	--	--	--
	Test	The mock test was conduction on the first two units (some topics) of the curriculum on OBE Pattern.	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
Oct.	**Theory**	Detection and solution of autocorrelation. Heteroscedastic disturbances: Concepts and efficiency of Aitken estimator with OLS estimator under Heteroscedasticity.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Practical	Diagnostics of Autocorrelation. Estimation of General linear model under Autocorrelation Problems related to consequences Heteroscedasticity. Diagnostics of Heteroscedasticity.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Tutorials	--	--	--
	Theory	Tests of proportions, tests of association and goodness-of-fit using Chi-square Test, Yates' correction.	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Practical	Chi-square test of proportions. Chi-square tests of association. Chi-square test of goodness-of-fit. Test for correlation coefficient.	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Tutorials	--	--	--
Nov.	**Theory**	Consequences of Heteroscedasticity. Tests and solutions of Heteroscedasticity. Autoregressive and Lag models.	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics
	Practical	Estimation of problems of General linear model under Heteroscedastic disturbance terms. Problems concerning specification errors as a reason for induction of Autocorrelation, Heteroscdasticity and Multicollinearity. Problems related to General linear model under (Aitken Estimation).	B.Sc. (Hons.) Statistics	STAT- DSE 2-(B): Econometrics

		Problems on Autoregressive and Lag models.		
	Tutorials	--	--	--
	Theory	Tests for the significance of correlation coefficient, Sign test for median, Sign test for symmetry, Wilcoxon two-sample test.	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Practical	Sign test for median. Sign test for symmetry. Wilcoxon two-sample test.	B.Sc. (Hons.) Statistics	STAT-GE-3: Basics of Statistical Inference
	Tutorials	--	--	--

Semester I

Month		**Topics**	**Course**	**Paper Code/Name**
Nov.	**Theory**	Statistical Methods: Definition and scope of Statistics, concepts of statistical population and sample.	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Practical	--	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Tutorials	--	--	--
	Theory	--	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Practical	--	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Tutorials	--	--	--
Dec.	**Theory**	Quantitative and qualitative data, attributes, variables, scales of measurement: nominal, ordinal, interval and ratio. Presentation: tabular and graphical, including histogram and Ogives.	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Practical	--	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Tutorials	--	--	--
	Assignment	Assignment was given on different topics related with curriculum to each student.	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Theory	--	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods

	Practical	Graphical representation of data.	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Tutorials	--	--	--
	Assignment		B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Theory	Theory of attributes: consistency and independence of data with special reference to attributes. Probability: Introduction, random experiments, sample space, events and algebra of events.	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Practical	Measures of Dispersion Coefficient of dispersion and variation Combined mean and combined variance and Raw moments	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Tutorials	--	--	--
	Test	--	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
Jan.	**Theory**	Measures of Central Tendency: mathematical and positional. Measures of Dispersion: range, quartile deviation, mean deviation, and standard deviation.	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Practical	Problems based on measures of central tendency. Problems based on measures of dispersion. Problems based on combined mean and variance and coefficient of variation.	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Tutorials	--	--	--
	Test	--	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Theory	Definitions of Probability-classical, statistical, and axiomatic. Conditional Probability, Addition and multiplication theorem of probability, independent events, Theorem of Total probability, Bayes' theorem and its applications.	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
Feb.	**Practical**	Moments about any arbitrary point Central Moments Moments using relation between Raw moments, Moments about any arbitrary point and Central Moments Correct moments involving wrong	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics

		data		
	Tutorials	--	--	--
	Theory	Coefficient of variation and moments. Skewness and Kurtosis. Theory of attributes, consistency of data.	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Practical	Problems based on moments, skewness and kurtosis. Fitting of polynomials, exponential curves. Karl Pearson correlation coefficient. Partial and multiple correlations. Spearman rank correlation with and without ties.	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Tutorials	--	--	--
Mar.	**Theory**	Random variables: discrete and continuous, illustrations and properties of random variables, pmf, pdf and cdf, Two dimensional random variables: Joint, marginal and conditional pmf/ pdf, independence of random variables. Univariate transformation. Mathematical Expectation: Expectation of random variables and its properties.	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Practical	Skewness based on mean, median, mode and standard deviation Skewness and kurtosis based on moments. Problem based on missing frequencies Theory of attributes	B.Sc. (Hons.) Statistics	STAT-C-101: Descriptive Statistics
	Tutorials	--	--	--
	Theory	Independence and association of attributes. Measures of association and contingency.	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Practical	Correlation coefficient for a bivariate frequency distribution. Lines of regression, angle between lines and estimated values of variables. Checking consistency of data and finding association among attributes.	B.Sc. (Hons.) Statistics	STAT-GE-1: Statistical Methods
	Tutorials	--	--	--